
SABINE RIVER AUTHORITY OF TEXAS

TO: INTERESTED PARTIES
FROM: ENVIRONMENTAL SERVICES DIVISION
RE: JUNE 2002 MONTHLY WATER QUALITY REPORT

This is the Sabine River Authority Water Quality Summary for June 2002. Water quality sampling was performed June 11th through June 13th. Recent weather in the Basin was hot with air temperatures in the 80s and 90s during the daytime and lows in the 60s and 70s at night. The Upper Basin received 2.48 – 1.47 inches of rainfall during the 28 days since the previous sample run as recorded at Lake Tawakoni and Lake Fork respectively. Toledo Bend and Orange received 1.41 and 2.31 inches respectively during the 28 days preceding the sample run. Reservoir profiles indicated stratification of the water column with a distinct thermocline in each reservoir. The thermocline was located about 8-9 m deep near the dams at Lake Tawakoni and Lake Fork, 6 m deep near the dam at Toledo Bend Reservoir, and 6 m deep at shallower lake sites upstream of the dams.

UPPER SABINE BASIN ABOVE TOLEDO BEND INCLUDING LAKE FORK AND LAKE TAWAKONI

For the June sample run, most of the parameter's values seen at the Upper Basin sites were consistent with water of high quality. The most recent rain was 0.33 inches at Lake Tawakoni and 0.05inch at Lake Fork one day prior to the first sample date. Surface water temperatures were between 24.5 and 28.2 C. *E. coli* exceeded the single-grab stream standard limit at SR22. This site also fell below stream standards for dissolved oxygen with 4.07 mg/L and had elevated turbidity. Orthophosphate exceeded screening guidelines at LT23D. State stream standards for orthophosphate do not exist so screening guidelines are used to predict normal conditions. Surface temperatures near the dams at Lake Tawakoni and Lake Fork respectively were about four and eleven degrees warmer than bottom temperatures.

SABINE RIVER AUTHORITY OF TEXAS: MONTHLY WATER QUALITY REPORT

LOWER SABINE BASIN INCLUDING TOLEDO BEND TO MORGAN BLUFF

The June monthly sampling results were indicative of water of high quality at most sites. The last significant rainfall occurred over one week prior to the sampling event. The level of Toledo Bend Reservoir was recorded at 171.8 feet with no discharge from the spillway gates at the time of sampling. The generator was also not operating at the time of sampling. All lake sites were thermally stratified with some of the deep-water stations showing anoxic conditions at the deepest depths. Stations TB6N and TB6M had oxygen levels that were below the stream standard, and station BA4 had a sulfate result that was above the stream standard. The City of Logansport had a wastewater bypass the day before sampling, which resulted in high bacterial counts at station TB8. These bacterial counts caused station TB8 to exceed the stream standard for *E.coli*. The problem has since been corrected.

TIDAL SECTION OF THE SABINE BASIN BELOW MORGAN BLUFF

Stations sampled in the tidal portion of the Sabine Basin had values that were consistent with water of high quality at most sites. The area had only a slight amount of rain in the week prior to sampling. All sites were stratified with respect to dissolved oxygen, but all sites were well mixed with respect to temperature. Surface salinities were found at three of the four tidal stations. Station ICW1 recorded a value of 2.2 ppt, BB1 had a value of 4.9 ppt, and SRT1 had a value of 3.4 ppt at the surface. The highest salinity value of 8 ppt was recorded at station SRT1 at a depth of 10 meters. All values recorded in this section of the Basin were within their stream standard.

This Report and additional data for these monitoring stations are available on our World Wide Web site (www.sra.dst.tx.us). If you have any questions or comments concerning this report, please contact:

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SABINE RIVER AUTHORITY OF TEXAS

Monthly Water Quality Report

June 2002

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FY2002 Fixed Monitoring Stations

Upper Sabine Basin

<i>SW</i>	<i>Segment</i>	<i>Station</i>	<i>Location</i>
7.00	0507	10440 (LT23C)	LAKE TAWAKONI NR WIND POINT PARK
7.00	0507	10435 (LT23D)	LAKE TAWAKONI IN KITSEE INLET NEAR WHITE POINT CAUSEWAY
7.00	0507	10434 (LT23A)	LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM
6.12	0512	10461 (LF3)	LAKE FORK RESERVOIR MID-ARM IN CANEY CREEK ARM AT FM 515
6.12	0512	10462 (LF4)	LAKE FORK RESERVOIR MID-COVE IN LAKE FORK CREEK ARM AT FM515
6.12	0512	10458 (LF2)	LAKE FORK RESERVOIR NEAR DAM IN CREEK CHANNEL
6.10	0515	10469 (LF20)	LAKE FORK CREEK AT US 80
6.02	0514	10467 (BS18)	BIG SANDY CREEK AT US 80
6.00	0506	17065 (SR22)	SABINE RIVER AT FM 17 (SR22)
6.00	0506	10430 (SR21)	SABINE RIVER AT US 69
6.00	0506	10429 (SR19)	SABINE RIVER AT SH 14 S. OF HAWKINS
5.00	0505	10428 (SR17)	SABINE RIVER AT US 271
5.00	0505	10427 (SR16)	SABINE RIVER AT SH 42
5.00	0505	10426 (SR15)	SABINE RIVER AT US 259
5.00	0505	10423 (SR14)	SABINE RIVER AT SH 149
5.00	0505	13628 (SR11)	SABINE RIVER AT US 59
5.00	0505	10415 (SR10)	SABINE RIVER AT FM 2517

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Upper Sabine Basin Report

June 2002

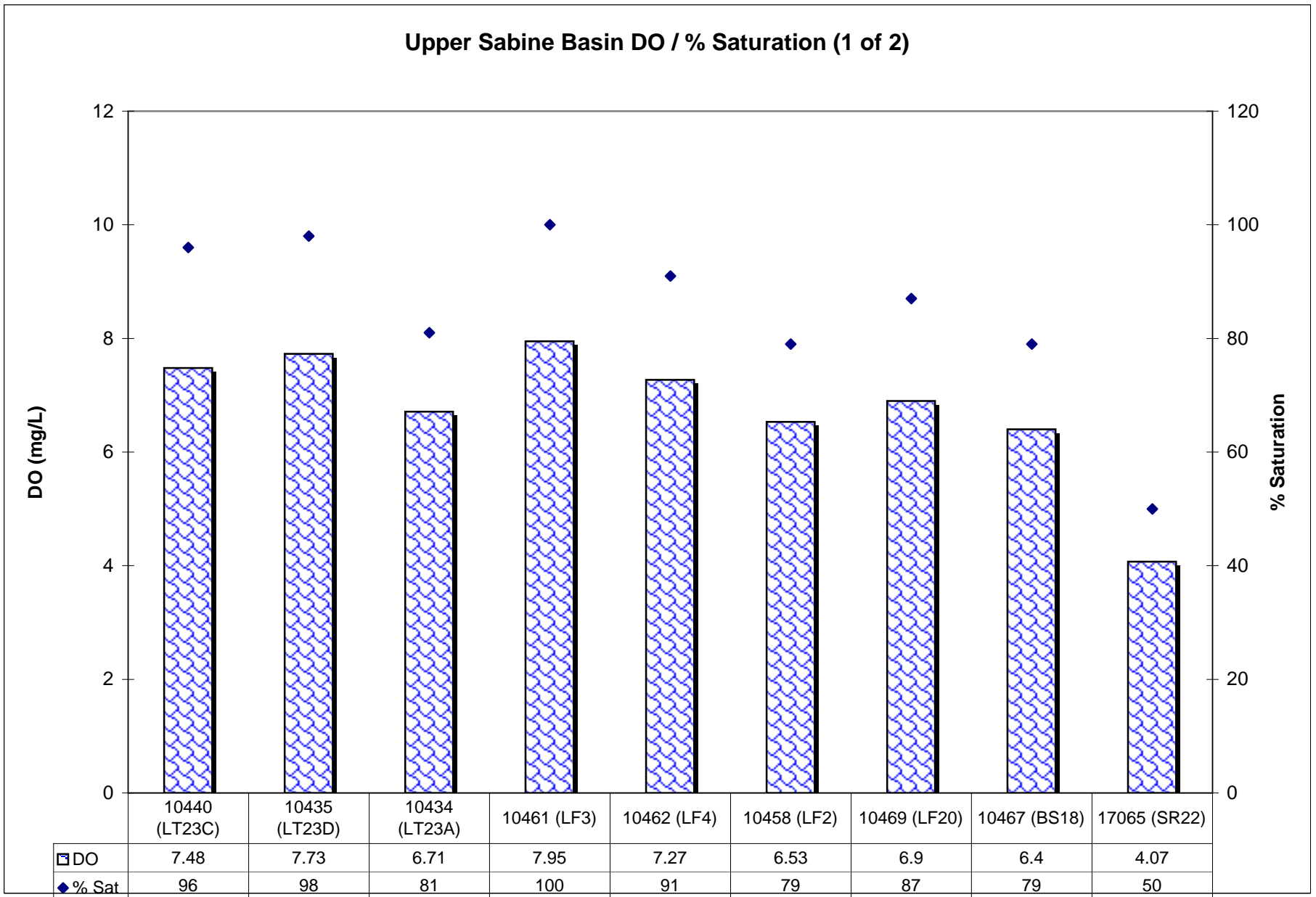
Date	SW ID	Station	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity µS/cm 00094	Salinity ppt 00480	Secchi Meters 00078	Turbidity NTU 82079	<i>E. coli</i> mpn/100ml 31699	Chlorophyll a µg/L 32211	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
6/11/02 11:35 AM	7.00	10440 (LT23C)	27.9	8.84	7.48	96	172	*	0.54	13.1	3	*	< 0.04	0.04	5	*	*	< 10	< 10
6/11/02 10:41 AM	7.00	10435 (LT23D)	27.8	8.5	7.73	98	180	*	0.65	14.9	2	*	< 0.04	0.2	5	*	*	< 10	< 10
6/11/02 9:42 AM	7.00	10434 (LT23A)	24.5	7.64	6.71	81	168	*	1.42	5.47	< 1	*	0.32	< 0.04	4	*	*	< 10	< 10
6/11/02 8:37 AM	6.12	10461 (LF3)	27.2	8.69	7.95	100	145	*	1.33	4.15	< 1	*	< 0.04	< 0.04	6	*	*	11	14
6/11/02 8:57 AM	6.12	10462 (LF4)	26.7	7.68	7.27	91	140	*	1.41	3.6	< 1	*	< 0.04	< 0.04	5	*	*	< 10	15
6/11/02 8:00 AM	6.12	10458 (LF2)	24.6	6.97	6.53	79	137	*	1.8	2.16	< 1	*	< 0.04	< 0.04	5	*	*	< 10	15
6/11/02 1:31 PM	6.10	10469 (LF20)	27.5	7.12	6.9	87	169	*	0.36	40.4	35	*	0.07	< 0.04	5	*	*	15	18
6/11/02 2:08 PM	6.02	10467 (BS18)	25.9	6.65	6.4	79	127	*	1.01	12	93	*	0.35	< 0.04	5	*	*	13	< 10
6/11/02 12:29 PM	6.00	17065 (SR22)	25.7	6.83	4.07	50	283	*	0.38	59.4	649	*	0.64	0.45	10	*	*	27	36
6/11/02 12:58 PM	6.00	10430 (SR21)	27	7.36	6.32	79	552	*	0.34	53.3	62	*	0.22	< 0.04	5	*	*	98	32
6/11/02 1:48 PM	6.00	10429 (SR19)	27.7	7.29	7.34	93	248	*	0.41	45.8	20	*	0.26	< 0.04	5	*	*	22	21
6/11/02 2:30 PM	5.00	10428 (SR17)	28.1	7.29	7.57	97	228	*	0.51	44.8	27	*	0.29	< 0.04	5	*	*	19	16
6/11/02 2:53 PM	5.00	10427 (SR16)	28.2	7.19	7.68	99	239	*	0.45	37.6	30	*	0.19	< 0.04	5	*	*	24	15
6/12/02 8:02 AM	5.00	10426 (SR15)	27.5	7.29	6.69	85	244	*	0.37	36.7	27	*	0.19	< 0.04	5	*	*	24	15
6/12/02 8:25 AM	5.00	10423 (SR14)	27.6	7.2	6.59	84	254	*	0.36	42.3	64	*	0.52	< 0.04	5	*	*	28	17
6/12/02 9:07 AM	5.00	13628 (SR11)	27.8	7.36	6.95	88	331	*	0.42	43.7	29	*	0.31	< 0.04	5	*	*	36	29
6/12/02 9:37 AM	5.00	10415 (SR10)	28.2	7.44	7.94	102	304	*	0.37	47.3	33	*	0.11	< 0.04	5	*	*	31	26

*: Not sampled on this run

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June 2002

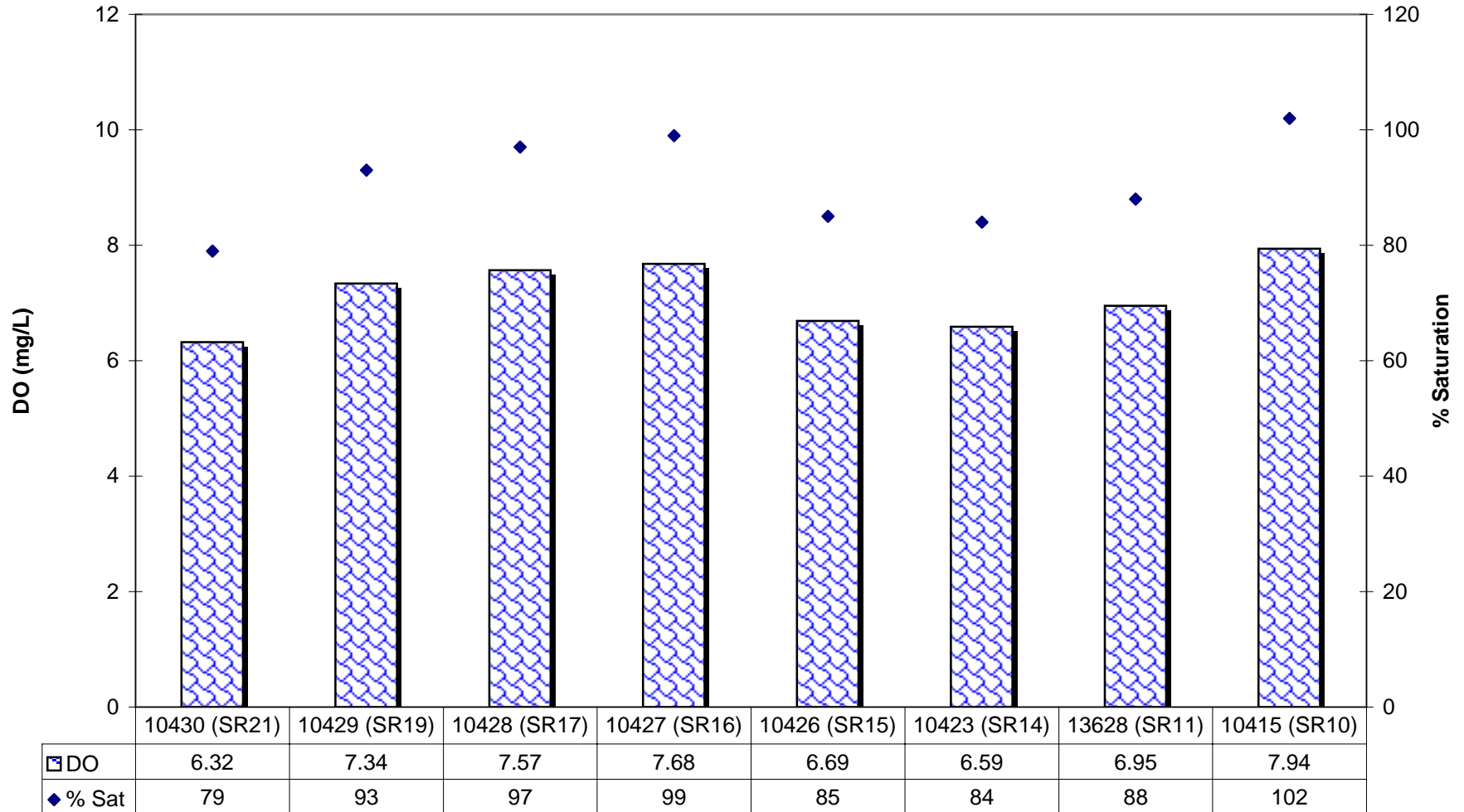
Upper Sabine Basin DO / % Saturation (1 of 2)



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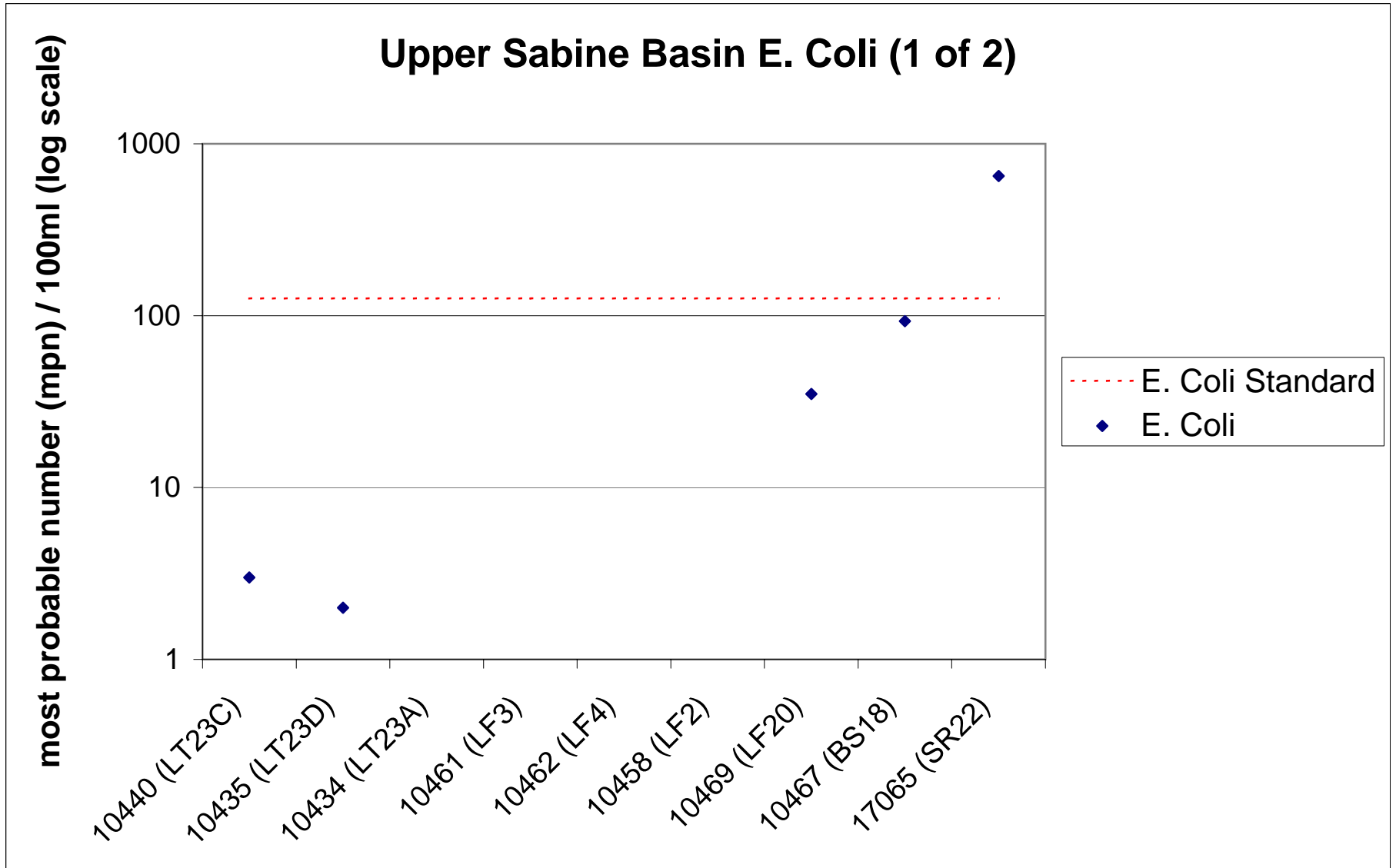
June 2002

Upper Sabine Basin DO / % Saturation (2 of 2)



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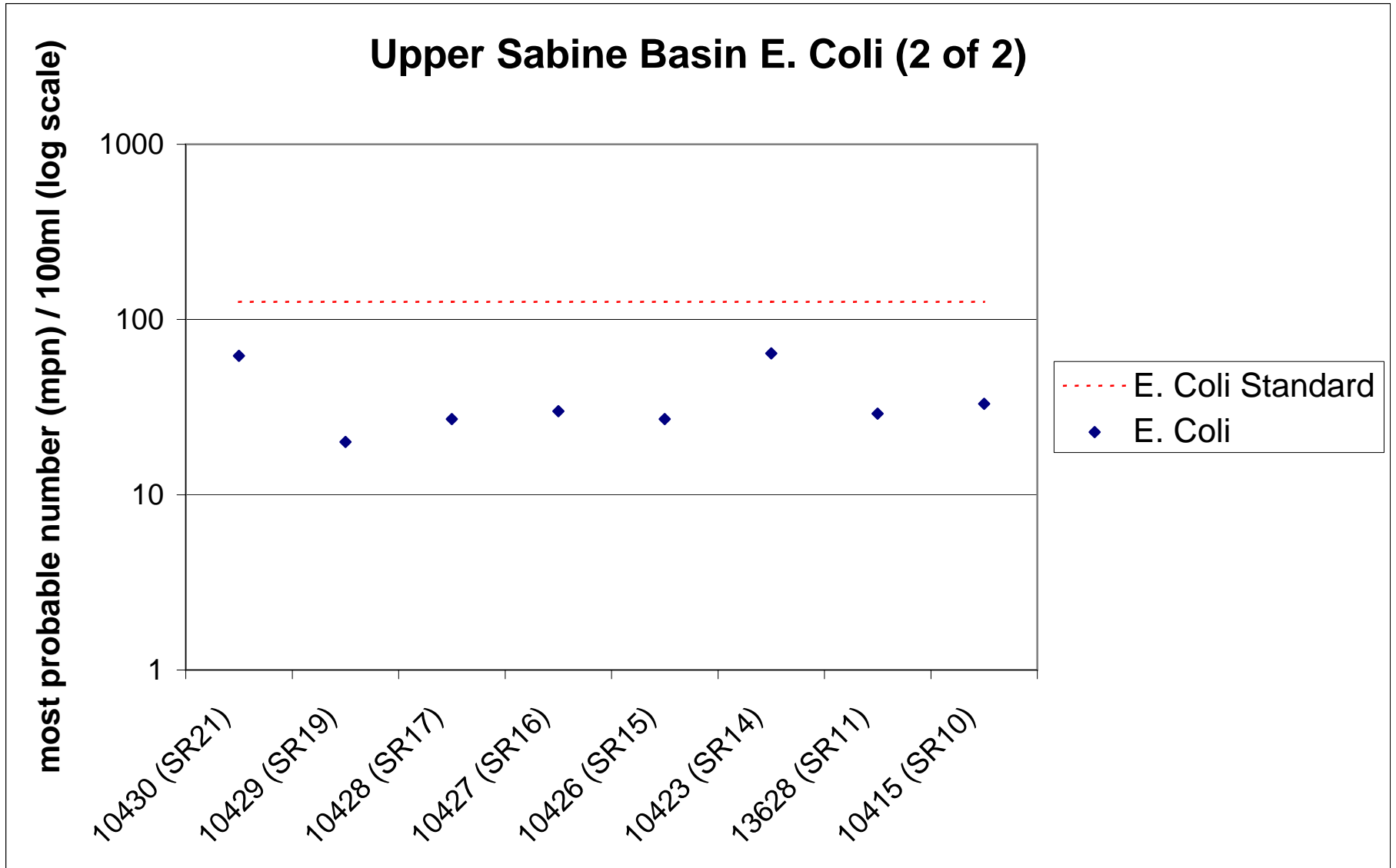
June 2002



Stations without values were below detection limit on this run (see page 2)

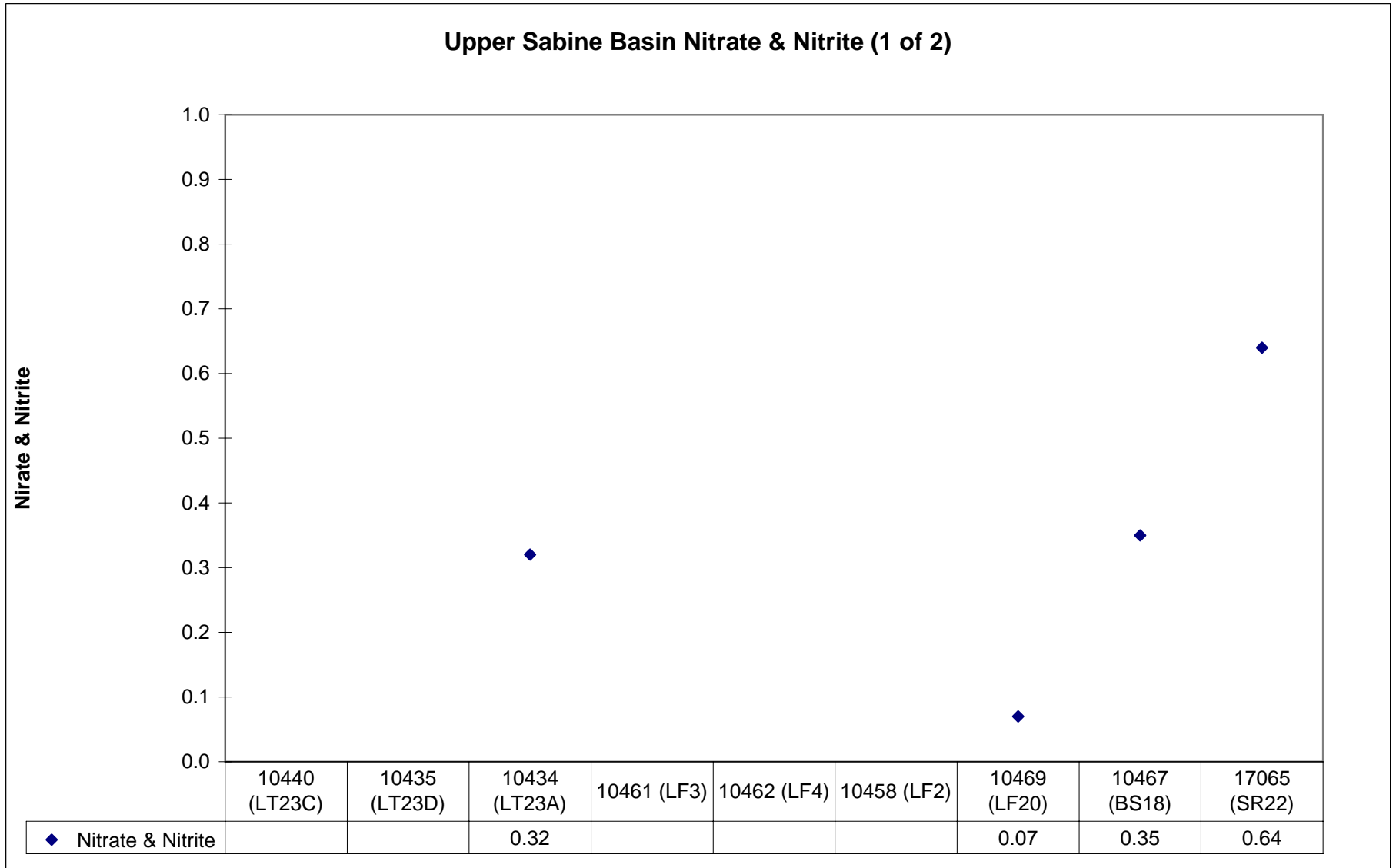
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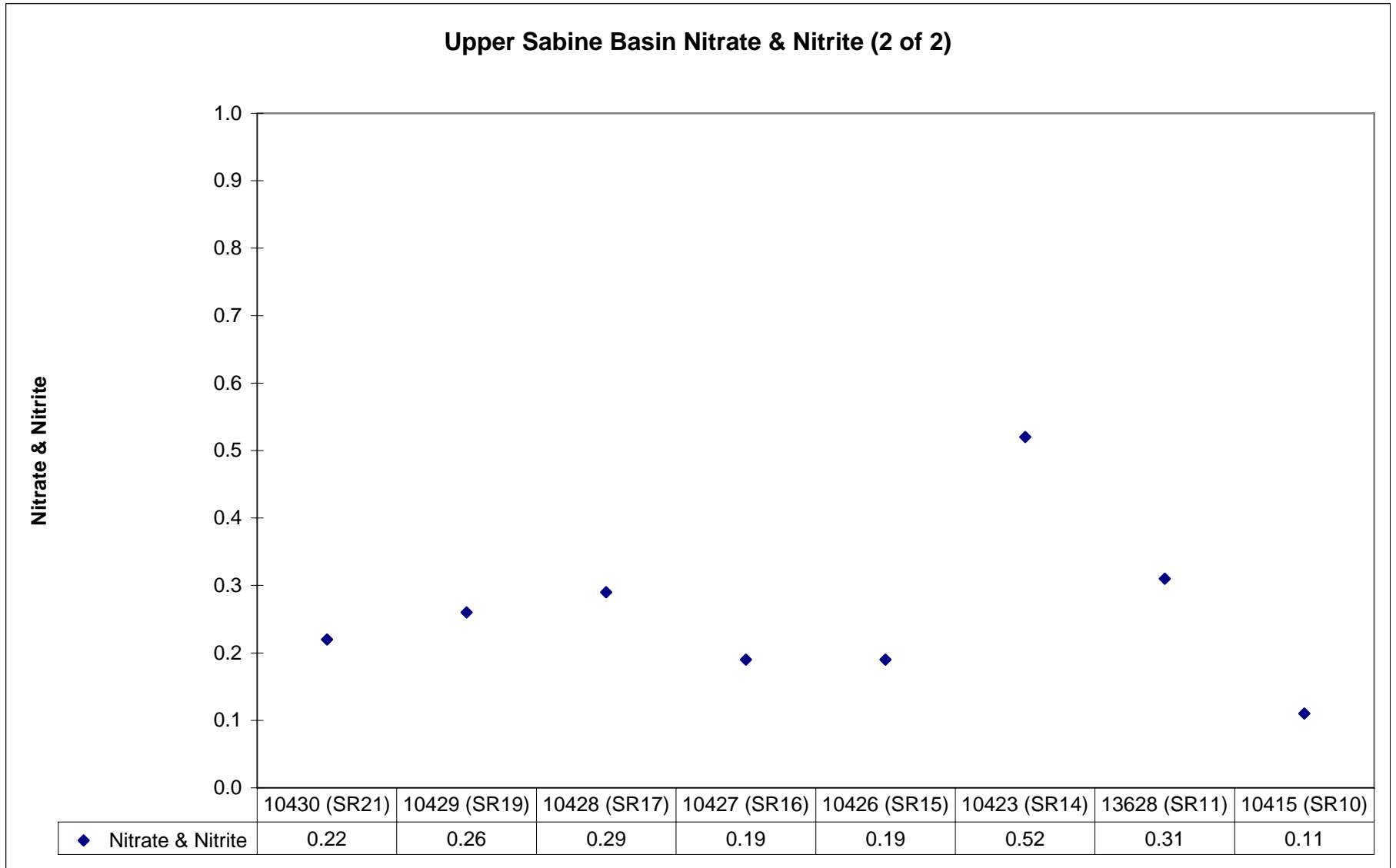
June 2002



Stations without values were below detection limit on this run (see page 2)

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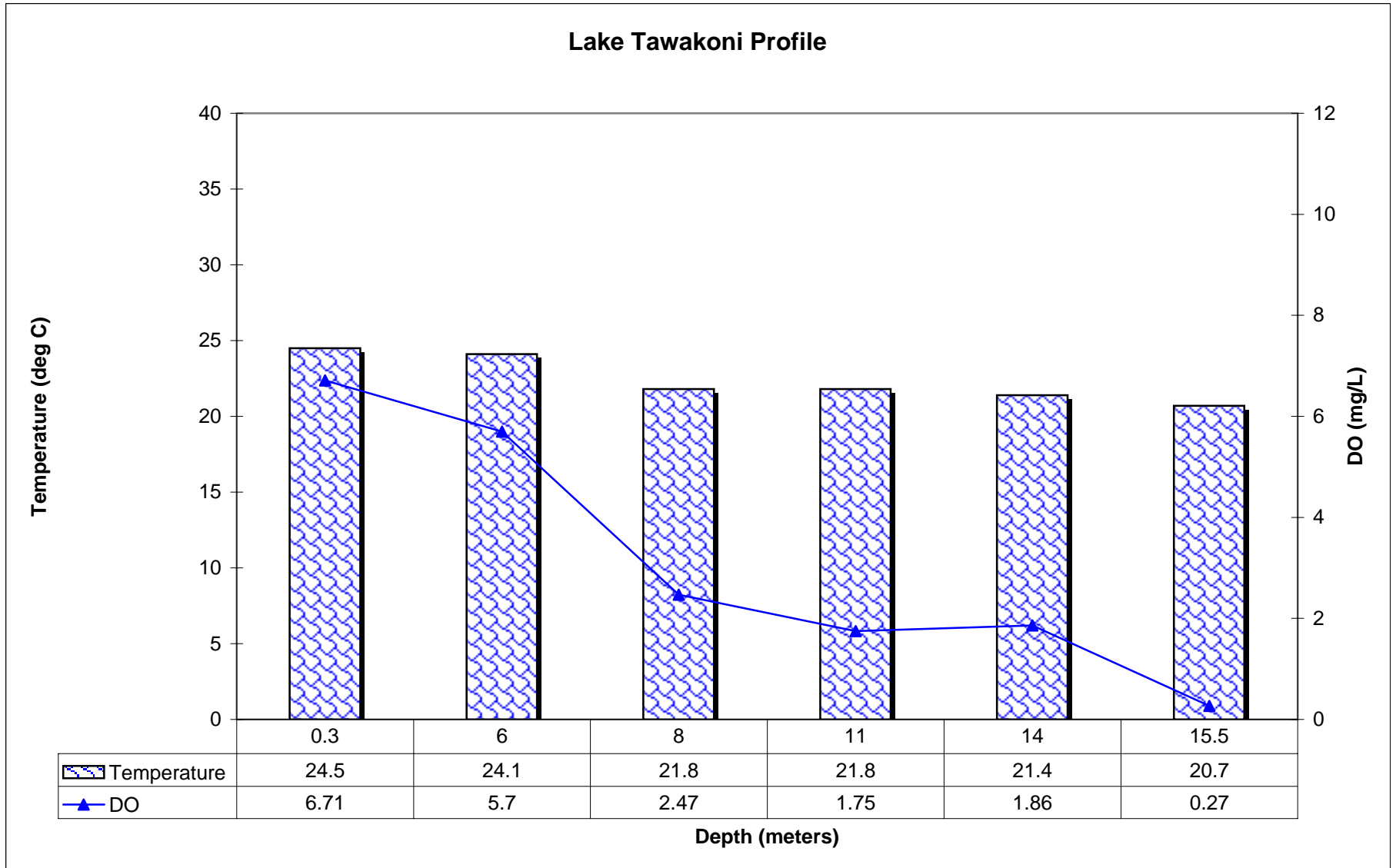
Upper Basin Profiles

June 2002

Date	SW ID	Station	Depth Meters	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity μS/cm 00094
6/11/02 11:35 AM	7.00	10440 (LT23C)	0.3	27.9	8.84	7.48	96	172
			2	27.7	8.8	7.06	90	172
			4.45	27.5	8.5	6.1	77	173
6/11/02 10:41 AM	7.00	10435 (LT23D)	0.3	27.8	8.5	7.73	98	180
			2	27	8.51	6.42	81	172
			4.35	26.9	8.38	5.84	73	172
6/11/02 9:42 AM	7.00	10434 (LT23A)	0.3	24.5	7.64	6.71	81	168
			6	24.1	7.44	5.7	68	168
			8	21.8	7.1	2.47	29	169
			11	21.8	7	1.75	20	168
			14	21.4	7	1.86	21	168
			15.5	20.7	7.02	0.27	3	172
6/11/02 8:37 AM	6.12	10461 (LF3)	0.3	27.2	8.69	7.95	100	145
			5	27.2	8.49	7.78	98	145
			6	26.5	7.03	3.75	46	148
			7	24.7	6.73	0.28	3	156
			9.29	22.1	6.93	0.28	3	160
6/11/02 8:57 AM	6.12	10462 (LF4)	0.3	26.7	7.68	7.27	91	140
			7	26.5	7.37	6.54	82	141
			8	26.4	7.31	5.41	67	142
			9	23.8	6.84	0.9	10	150
			11	20.3	6.84	0.43	4	157
6/11/02 8:00 AM	6.12	10458 (LF2)	0.3	24.6	6.97	6.53	79	137
			5	23.9	6.89	5.13	61	137
			6	22.7	6.69	2.78	32	136
			8	21.8	6.62	2.56	29	134
			10	21	6.58	2.62	29	134
			11	19.2	6.46	1.07	11	134
			12	17.9	6.41	0.26	3	135
			14	15.6	6.29	0.19	2	136
			18.4	13.8	6.51	0.24	2	155

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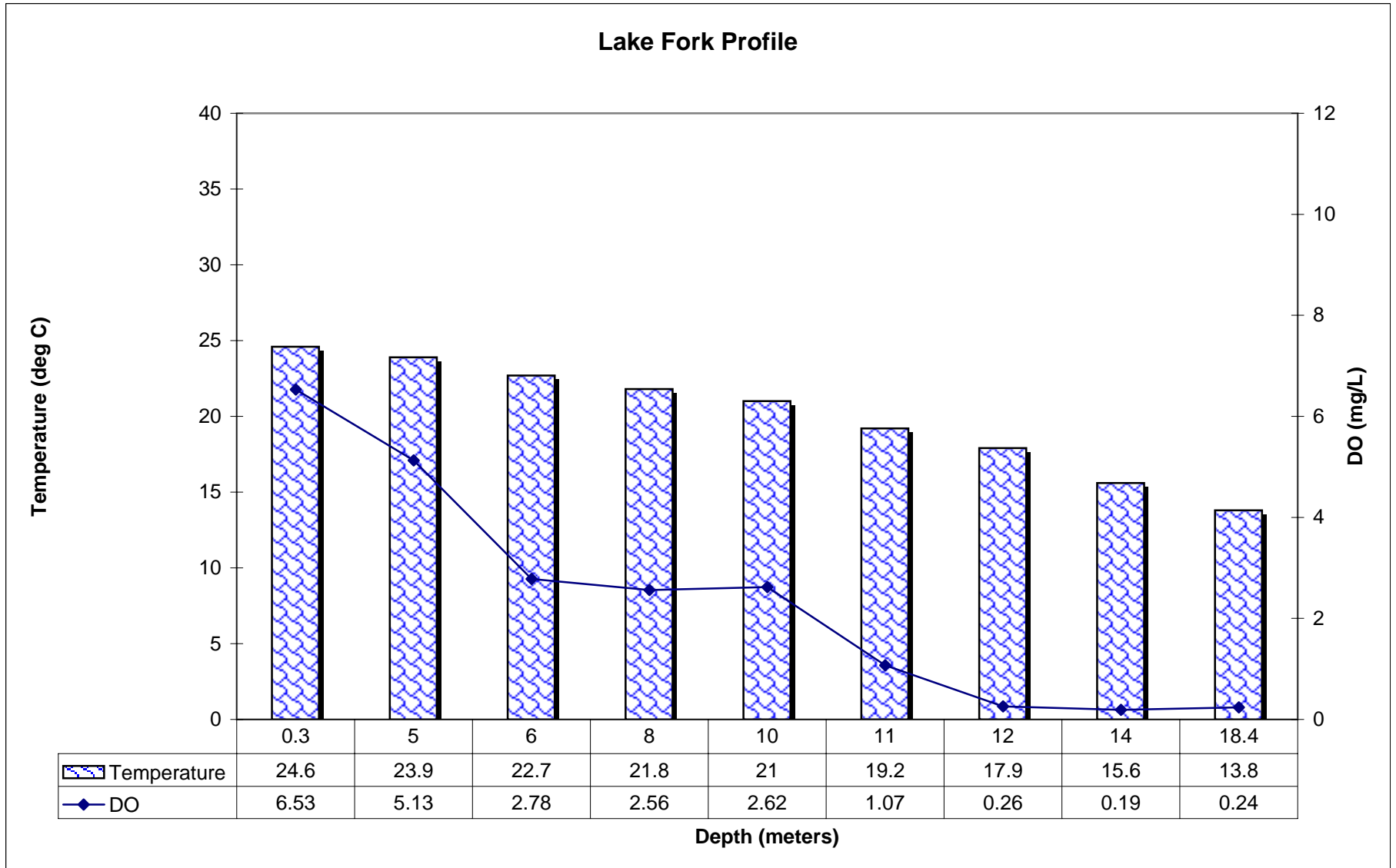
June 2002



For Station 10434 (LT23A): LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM IN THE OLD RIVER CHANNEL

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Lake Tawakoni Weather and Reservoir Data

June 2002

Date	Lake Elev	LE - TOP	Releases inst	Max Temp	Min Temp	Rainfall	Evap
6/1/2002	437.82	0.32	235	87	67	0.00	0.28
6/2/2002	437.78	0.28	235	90	70	0.00	0.32
6/3/2002	437.74	0.24	125	90	71	0.00	0.39
6/4/2002	437.71	0.21	125	91	72	0.00	0.33
6/5/2002	437.70	0.20	125	90	73	0.00	0.31
6/6/2002	437.68	0.18	125	83	67	0.00	0.16
6/7/2002	437.62	0.12	45	88	69	0.00	0.28
6/8/2002	437.59	0.09	45	76	72	0.00	0.35
6/9/2002	437.57	0.07	45	91	74	0.00	0.33
6/10/2002	437.59	0.09	45	83	73	0.33	0.00
6/11/2002	437.57	0.07	45	91	76	0.00	0.26
6/12/2002	437.55	0.05	45	92	74	0.00	0.35
6/13/2002	437.52	0.02	5	93	74	0.00	0.36
6/14/2002	437.53	0.03	5	92	68	0.19	0.20
6/15/2002	437.48	(0.02)	5	89	62	0.00	0.51
6/16/2002	437.51	0.01	5	90	63	0.46	0.00
6/17/2002	437.44	(0.06)	5	86	62	0.00	0.30
6/18/2002	437.41	(0.09)	5	87	65	0.00	0.36
6/19/2002	437.39	(0.11)	5	90	65	0.00	0.34
6/20/2002	437.36	(0.14)	5	92	70	0.00	0.39
6/21/2002	437.36	(0.14)	5	92	72	0.00	0.30
6/22/2002	437.34	(0.16)	5	92	70	0.03	0.19
6/23/2002	437.33	(0.17)	5	92	68	0.00	0.37
6/24/2002	437.29	(0.21)	5	93	70	0.00	0.33
6/25/2002	437.27	(0.23)	5	91	69	0.00	0.30
6/26/2002	437.25	(0.25)	5	89	68	0.02	0.30
6/27/2002	437.25	(0.25)	5	87	69	0.00	0.17
6/28/2002	437.24	(0.26)	5	91	69	0.00	0.24
6/29/2002	437.22	(0.28)	5	90	72	0.50	0.00
6/30/2002	437.22	(0.28)	5	88	70	0.10	0.15
Avg or Tot	437.48	(0.02)	44	89	69	1.63	8.17

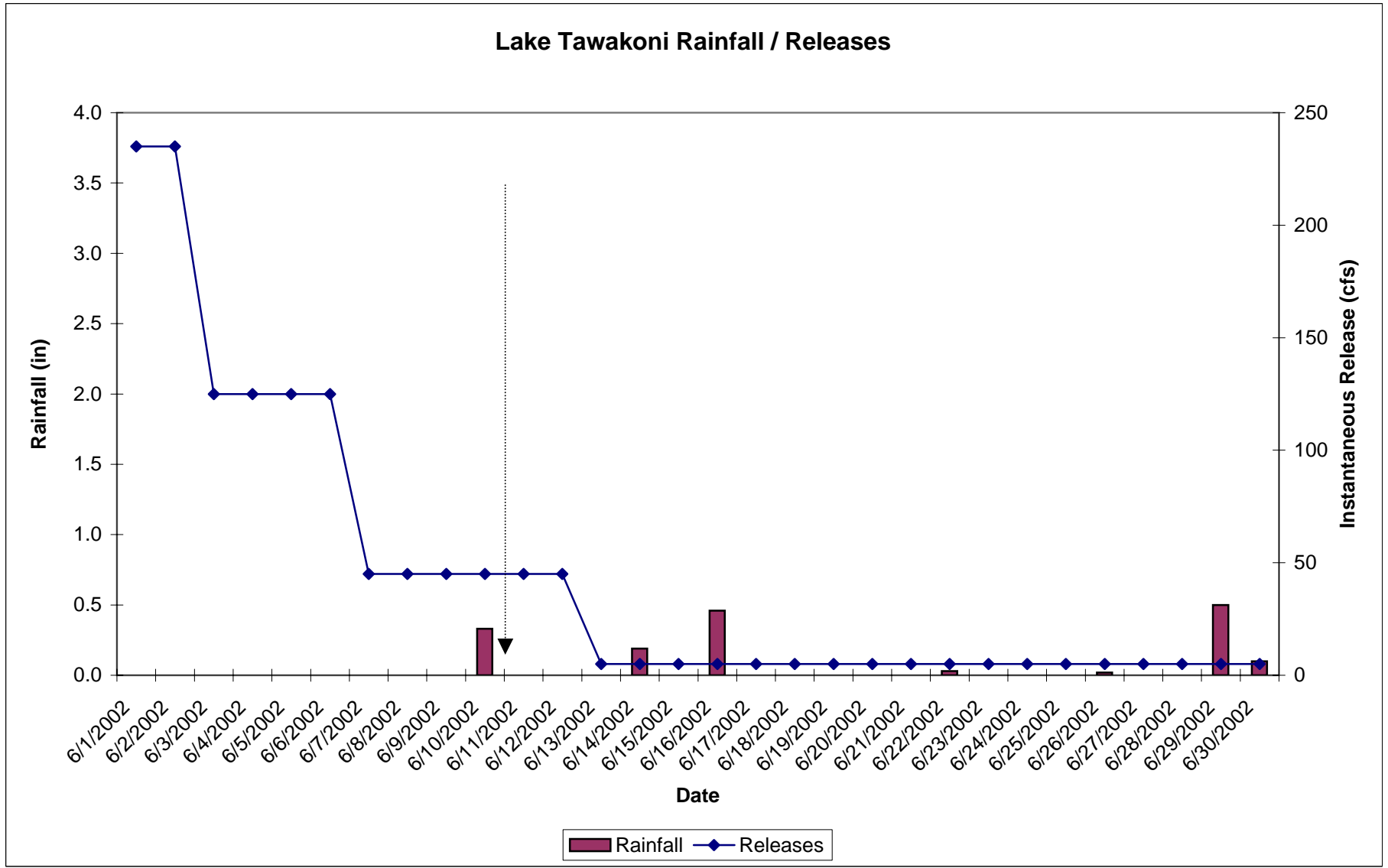
	Avg	Avg	Avg	Avg	Avg	Tot	Tot
Units	Feet M.S.L.	Feet	cfs	Deg F	Deg F	Inches	Inches
			Instantaneous appx. 8 a.m.				

TOP: Top of Pool = 437.5 Feet M.S.L.

Lake Tawakoni Sampled on 6/11/2002

SABINE RIVER AUTHORITY OF TEXAS

June 2002



Please Note : Lake Tawakoni has an uncontrolled spillway.

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Lake Fork Weather and Reservoir Data

June 2002

Date	Lake Elev	LE - TOP	Releases avg	Releases cur	Max Temp	Min Temp	Rainfall	Evap
6/1/2002	402.70	(0.30)	8	56	89	66	0.00	0.28
6/2/2002	402.70	(0.30)	56	56	93	68	0.00	0.29
6/3/2002	402.67	(0.33)	56	56	92	69	0.00	0.29
6/4/2002	402.69	(0.31)	56	56	91	70	0.00	0.11
6/5/2002	402.65	(0.35)	56	56	92	72	0.02	0.31
6/6/2002	402.66	(0.34)	56	56	90	66	0.00	0.20
6/7/2002	402.63	(0.37)	56	56	90	70	0.00	0.30
6/8/2002	402.61	(0.39)	56	56	90	71	0.00	0.34
6/9/2002	402.60	(0.40)	56	56	91	72	0.00	0.25
6/10/2002	402.60	(0.40)	56	56	94	72	0.05	0.23
6/11/2002	402.61	(0.39)	56	56	94	74	0.00	0.32
6/12/2002	402.60	(0.40)	56	56	95	73	0.00	0.32
6/13/2002	402.58	(0.42)	56	56	94	72	0.00	0.33
6/14/2002	402.58	(0.42)	56	56	93	70	0.00	0.29
6/15/2002	402.52	(0.48)	56	56	90	62	0.00	0.33
6/16/2002	402.50	(0.50)	56	56	90	64	0.33	0.34
6/17/2002	402.49	(0.51)	56	56	86	62	0.00	0.25
6/18/2002	402.45	(0.55)	56	56	89	62	0.00	0.31
6/19/2002	402.44	(0.56)	56	56	90	66	0.00	0.26
6/20/2002	402.42	(0.58)	56	56	94	72	0.00	0.45
6/21/2002	402.40	(0.60)	56	56	95	70	0.00	0.21
6/22/2002	402.40	(0.60)	56	56	92	68	0.05	0.14
6/23/2002	402.38	(0.62)	56	56	94	68	0.00	0.34
6/24/2002	402.35	(0.65)	56	56	94	70	0.00	0.27
6/25/2002	402.34	(0.66)	56	56	90	66	0.25	0.24
6/26/2002	402.32	(0.68)	56	56	89	67	0.30	0.29
6/27/2002	402.31	(0.69)	56	56	90	68	0.20	0.24
6/28/2002	402.29	(0.71)	56	56	92	69	0.00	0.21
6/29/2002	402.29	(0.71)	56	56	90	72	0.24	0.25
6/30/2002	402.28	(0.72)	56	56	89	70	0.02	0.19
Avg or Tot	402.50	(0.50)	54	56	91	69	1.46	8.18

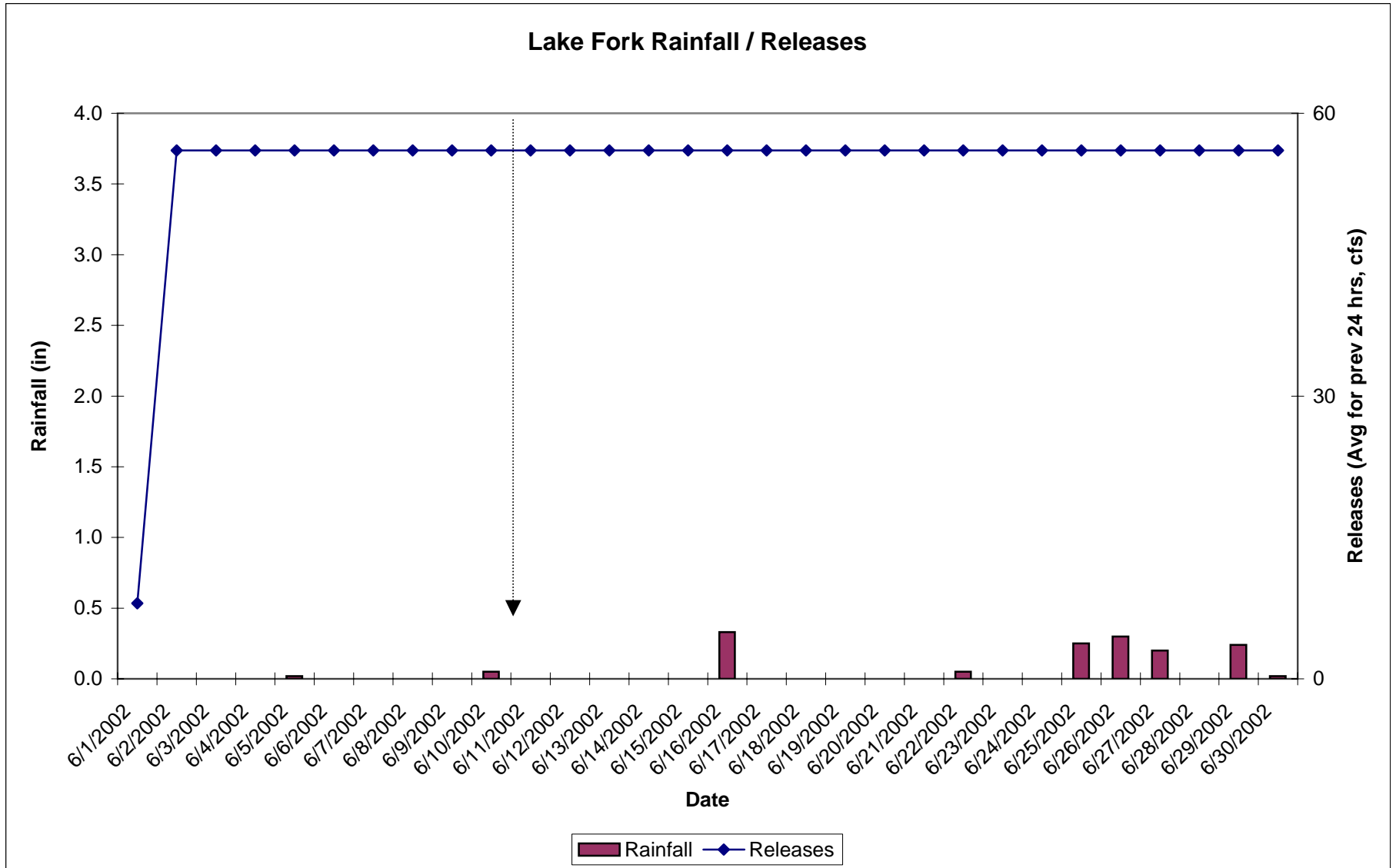
Units	Avg Feet M.S.L.	Avg Feet	Avg cfs Previous 24 hrs	cfs	Avg Deg F	Avg Deg F	Tot Inches	Tot Inches
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TOP: Top of Pool = 403 Feet M.S.L.

Lake Fork Sampled on 6/11/2002

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June 2002



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FY2002 Fixed Monitoring Stations

Lower Sabine Basin

<i>SW</i>	<i>Segment</i>	<i>Station</i>	<i>Location</i>
4.10	0504	15658 (TB6N)	BAYOU SCIE AT LA SH 191
4.00	0504	10403 (TB8)	TOLEDO BEND RESERVOIR AT US 84
4.00	0504	15657 (TB6M)	TOLEDO BEND RESERVOIR SAN PATRICIA ARM AT LA SH191
4.00	0504	15656 (TB6L)	TOLEDO BEND RESERVOIR SAN MIGUEL ARM AT LA SH191
4.00	0504	15655 (TB6J)	TOLEDO BEND RESERVOIR PATROON BAYOU ARM AT SH 276
4.00	0504	15659 (TB6K)	TOLEDO BEND RESERVOIR LANANA ARM AT LA SH191
4.00	0504	10402 (TB6H)	TOLEDO BEND RESERVOIR AT SH 21
4.00	0504	10411 (TB6F)	TOLEDO BEND RESERVOIR IN SUNSHINE BAY AT FM 3121
4.00	0504	10407 (TB6CN)	TOLEDO BEND RESERVOIR IN SIX MILE BOAT LANE AT SH 87
4.00	0504	10404 (TB6A)	TOLEDO BEND RESERVOIR NEAR DAM IN RIVER CHANNEL
3.03	0503	10340 (BA4)	ANACOCO BAYOU AT LOUISIANA HWY 111
3.00	0503	10401 (TB6S)	SABINE RIVER BELOW TOLEDO BEND SPILLWAY
3.00	0503	10400 (TB6)	TAIL RACE CHANNEL AT FM 692 TB6
3.00	0503	10399 (SR5)	SABINE RIVER AT SH 63
3.00	0503	10398 (SR3)	SABINE RIVER AT US 190
2.00	0503	10397 (SR2)	SABINE RIVER AT SH 12

SABINE RIVER AUTHORITY OF TEXAS

Lower Basin Report

June 2002

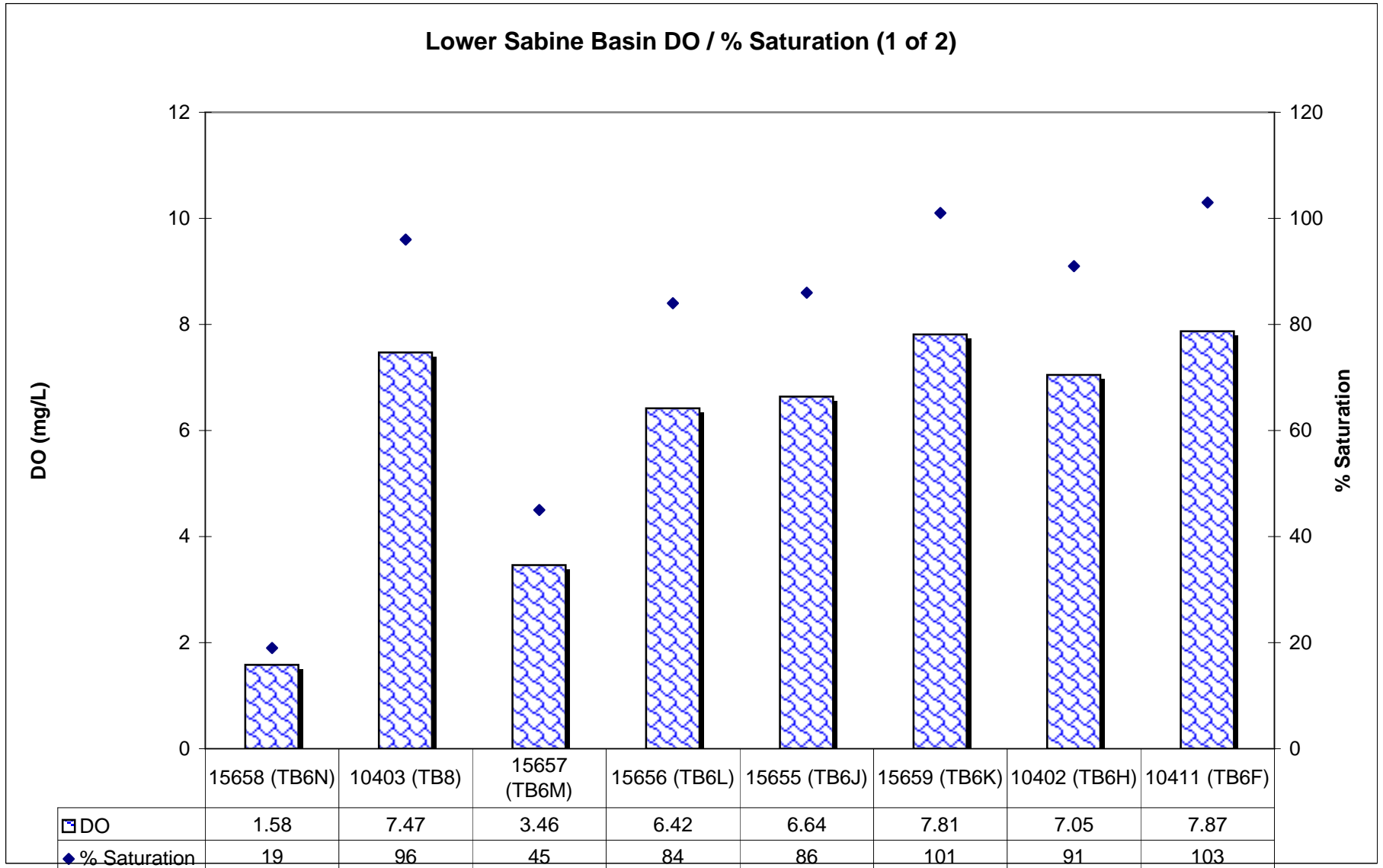
Date	SW ID	Station	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity µS/cm 00094	Salinity ppt 00480	Secchi Meters 00078	Turbidity NTU 82079	<i>E. coli</i> mpn/100ml 31699	Chlorophyll a µg/L 32211	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
6/11/02 12:25 PM	4.10	15658 (TB6N)	25.4	6.89	1.58	19	118	*	0.49	14.3	24	*	< 0.04	< 0.04	10	*	*	20	< 10
6/12/02 10:07 AM	4.00	10403 (TB8)	28.4	7.25	7.47	96	272	*	0.39	19.5	> 2419	*	0.11	< 0.04	5	*	*	23	22
6/11/02 12:45 PM	4.00	15657 (TB6M)	28.3	6.37	3.46	45	131	*	0.88	3.37	5	*	< 0.04	< 0.04	9	*	*	12	< 10
6/11/02 12:30 PM	4.00	15656 (TB6L)	29.1	6.65	6.42	84	141	*	0.51	6.84	< 1	*	< 0.04	< 0.04	9	*	*	14	< 10
6/11/02 10:20 AM	4.00	15655 (TB6J)	29	7.21	6.64	86	156	*	0.67	5.5	3	*	< 0.04	< 0.04	7	*	*	13	16
6/11/02 12:05 PM	4.00	15659 (TB6K)	29.1	7.79	7.81	101	150	*	0.81	4.04	< 1	*	< 0.04	< 0.04	7	*	*	13	16
6/11/02 11:00 AM	4.00	10402 (TB6H)	28.4	7.39	7.05	91	146	*	1.07	2.6	2	*	< 0.04	< 0.04	7	*	*	13	15
6/11/02 10:45 AM	4.00	10411 (TB6F)	29.5	7.95	7.87	103	136	*	1.06	2.53	7	*	< 0.04	< 0.04	6	*	*	12	14
6/11/02 9:40 AM	4.00	10407 (TB6CN)	29.6	7.08	7.42	98	128	*	0.88	3.73	11	*	< 0.04	< 0.04	6	*	*	11	14
6/12/02 10:20 AM	4.00	10404 (TB6A)	27	7.05	7.5	95	132	*	2.3	1	*	*	< 0.04	< 0.04	5	*	*	12	16
6/12/02 12:40 PM	3.03	10340 (BA4)	28.2	7.36	6.81	87	563	*	0.25	12.5	12	*	*	< 0.04	12	*	*	21	152
6/12/02 10:45 AM	3.00	10401 (TB6S)	16.9	7.07	9.76	100	136	*	*	2.76	1	*	*	< 0.04	5	*	*	11	15
6/12/02 11:00 AM	3.00	10400 (TB6)	20.7	6.82	5.4	60	131	*	> 1	6.17	< 1	*	*	< 0.04	5	*	*	12	16
6/12/02 12:15 PM	3.00	10399 (SR5)	24.3	7.09	7.05	84	130	*	1.02	2.6	7	*	*	< 0.04	5	*	*	12	15
6/12/02 1:00 PM	3.00	10398 (SR3)	27.3	7.05	7.68	96	143	*	0.52	8.5	7	*	*	< 0.04	5	*	*	12	20
6/12/02 8:35 AM	2.00	10397 (SR2)	28.5	6.85	7.04	91	125	*	0.44	17.8	24	*	*	< 0.04	5	*	*	11	16

*: Not sampled on this run

SABINE RIVER AUTHORITY OF TEXAS

June 2002

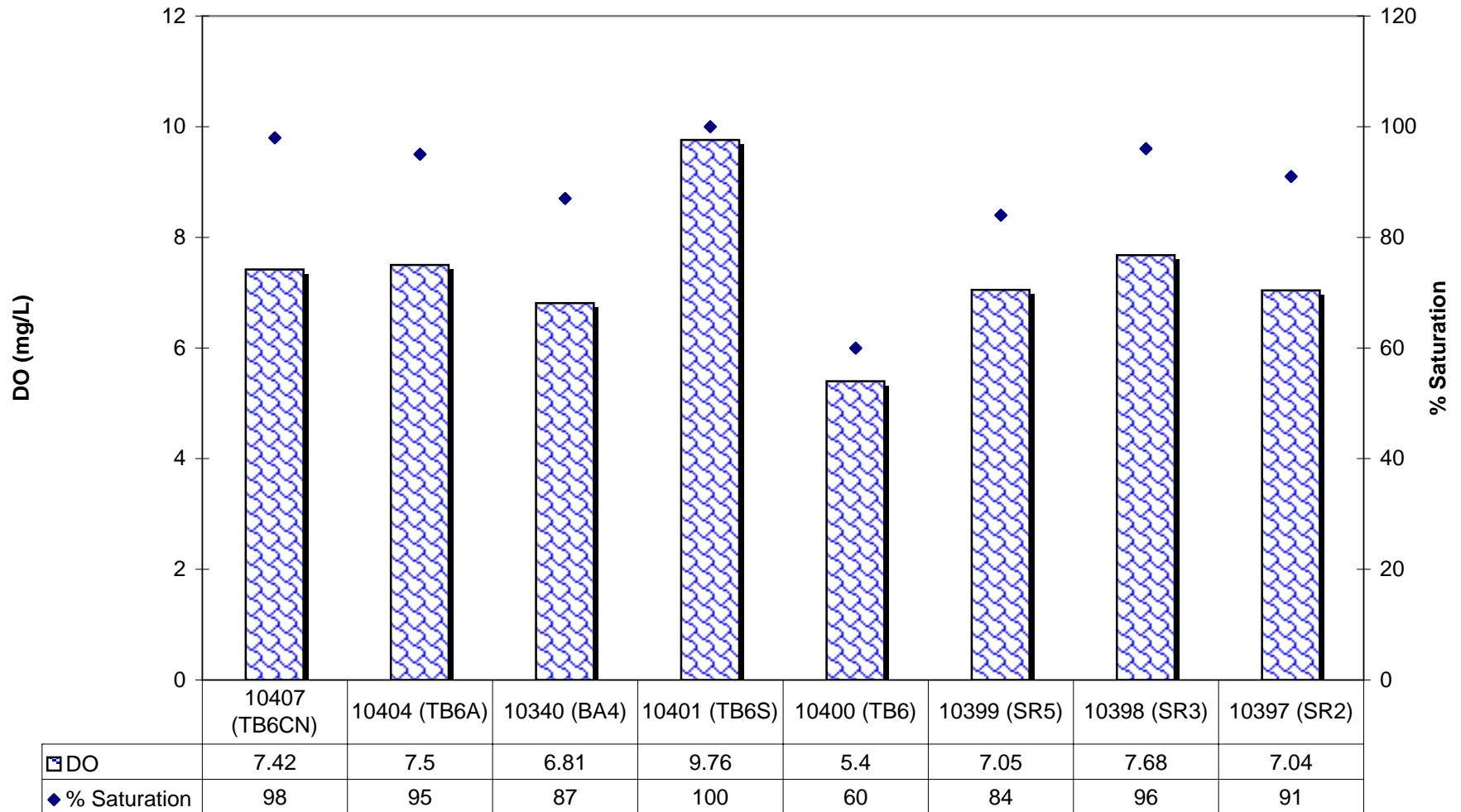
Lower Sabine Basin DO / % Saturation (1 of 2)



SABINE RIVER AUTHORITY OF TEXAS

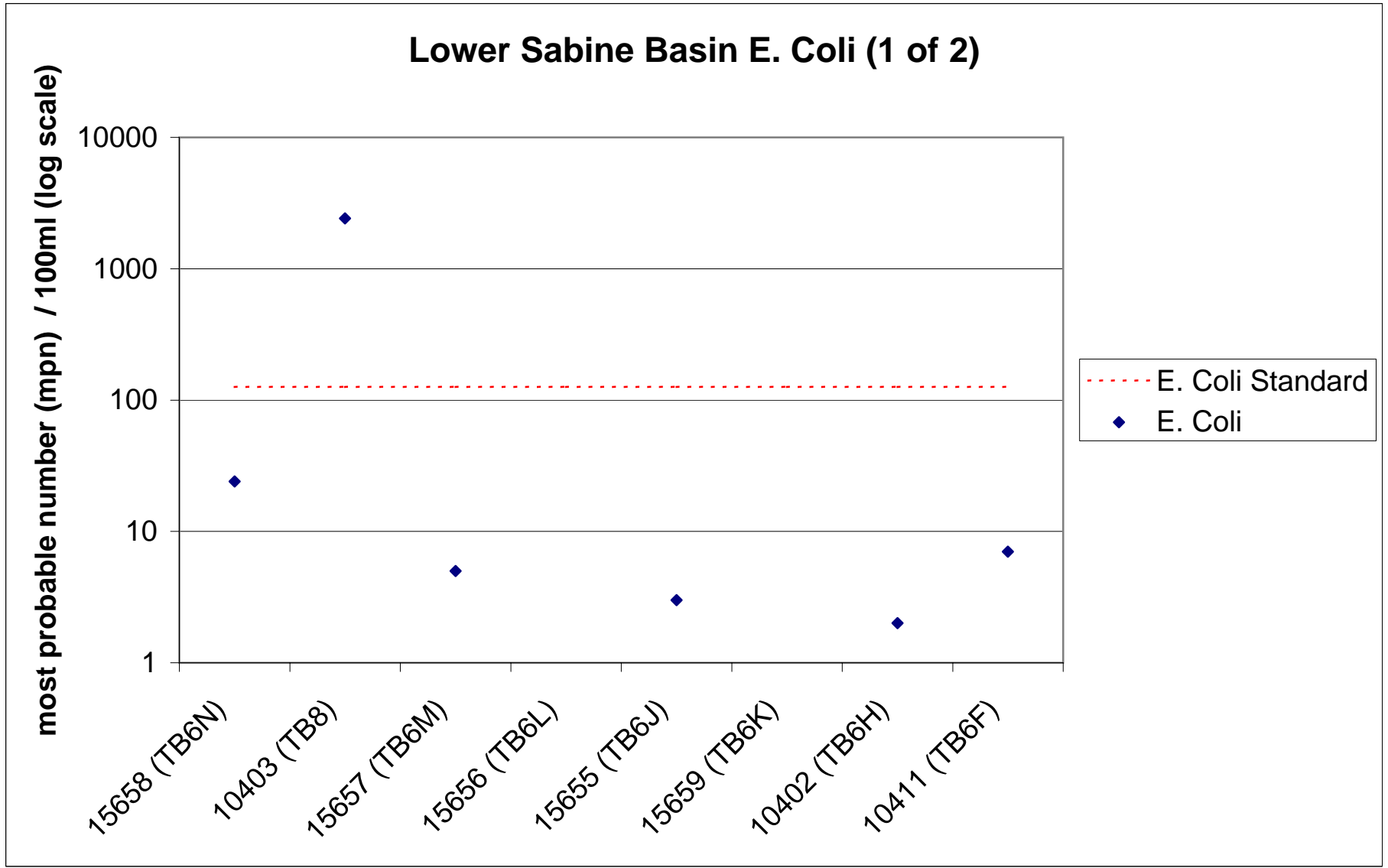
June 2002

Lower Sabine Basin DO / % Saturation (2 of 2)



SABINE RIVER AUTHORITY OF TEXAS

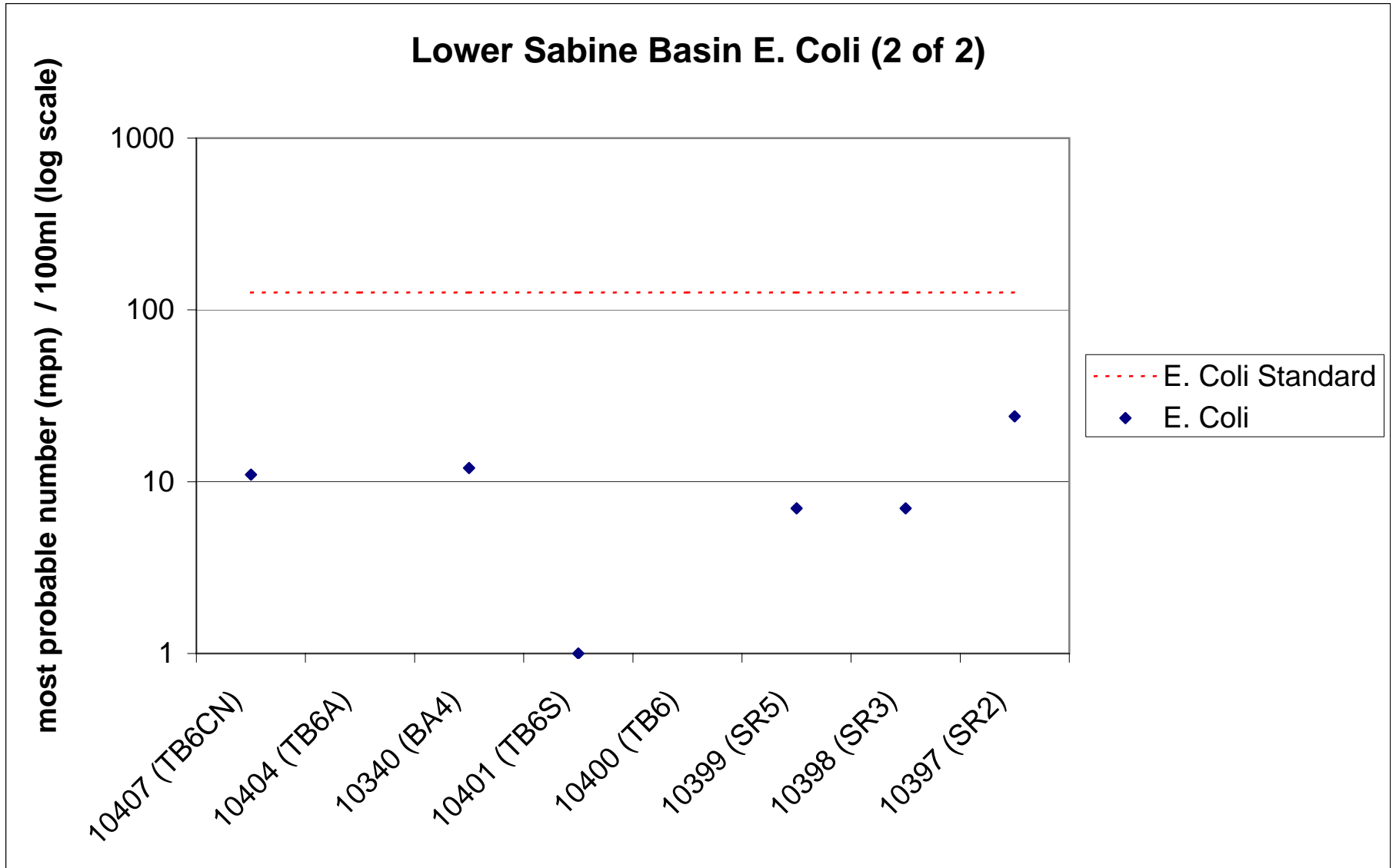
June 2002



Stations without values were below detection limit on this run (see page 18)

SABINE RIVER AUTHORITY OF TEXAS

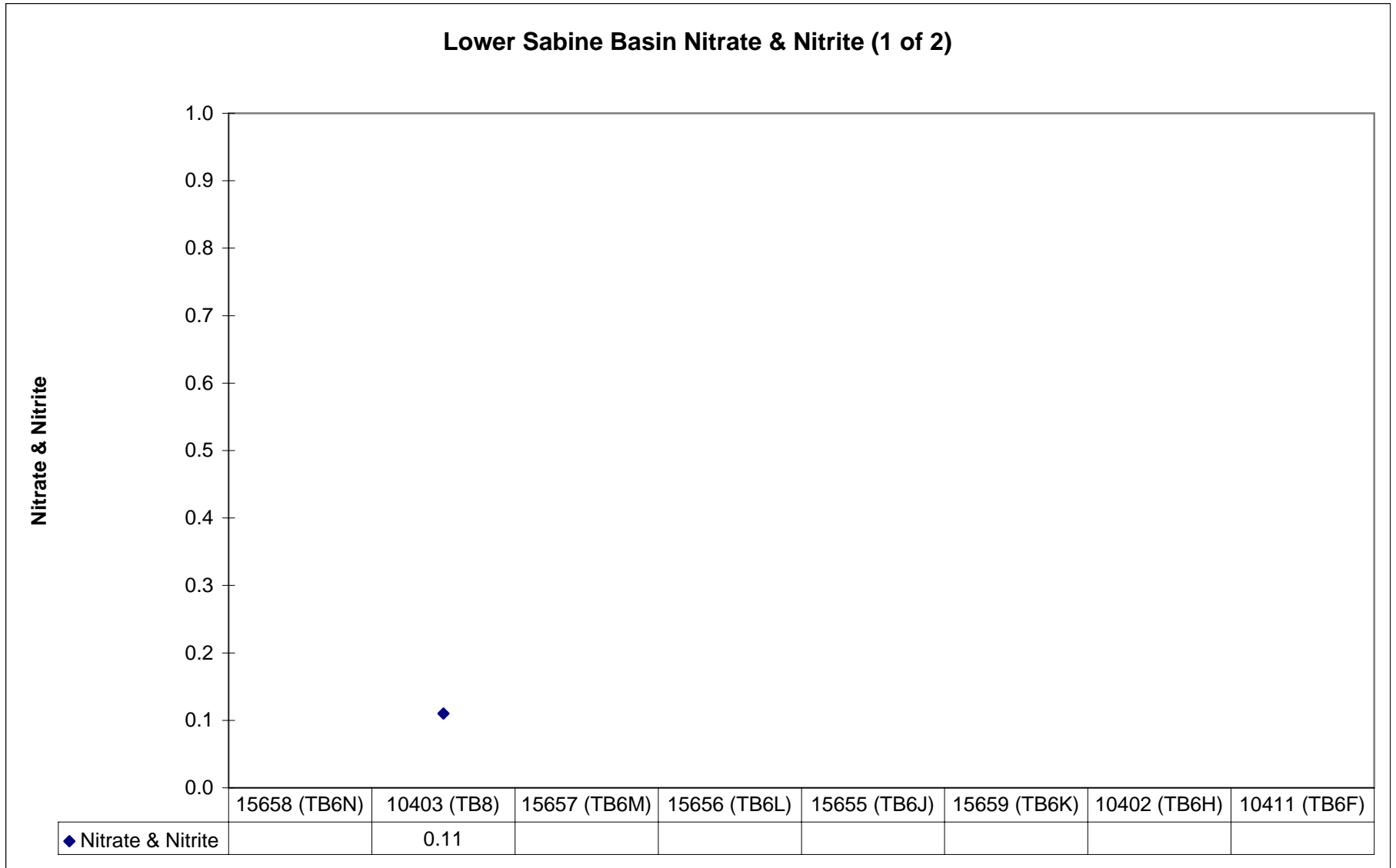
June 2002



Stations without values were below detection limit or not sampled on this run (see page 18).

SABINE RIVER AUTHORITY OF TEXAS

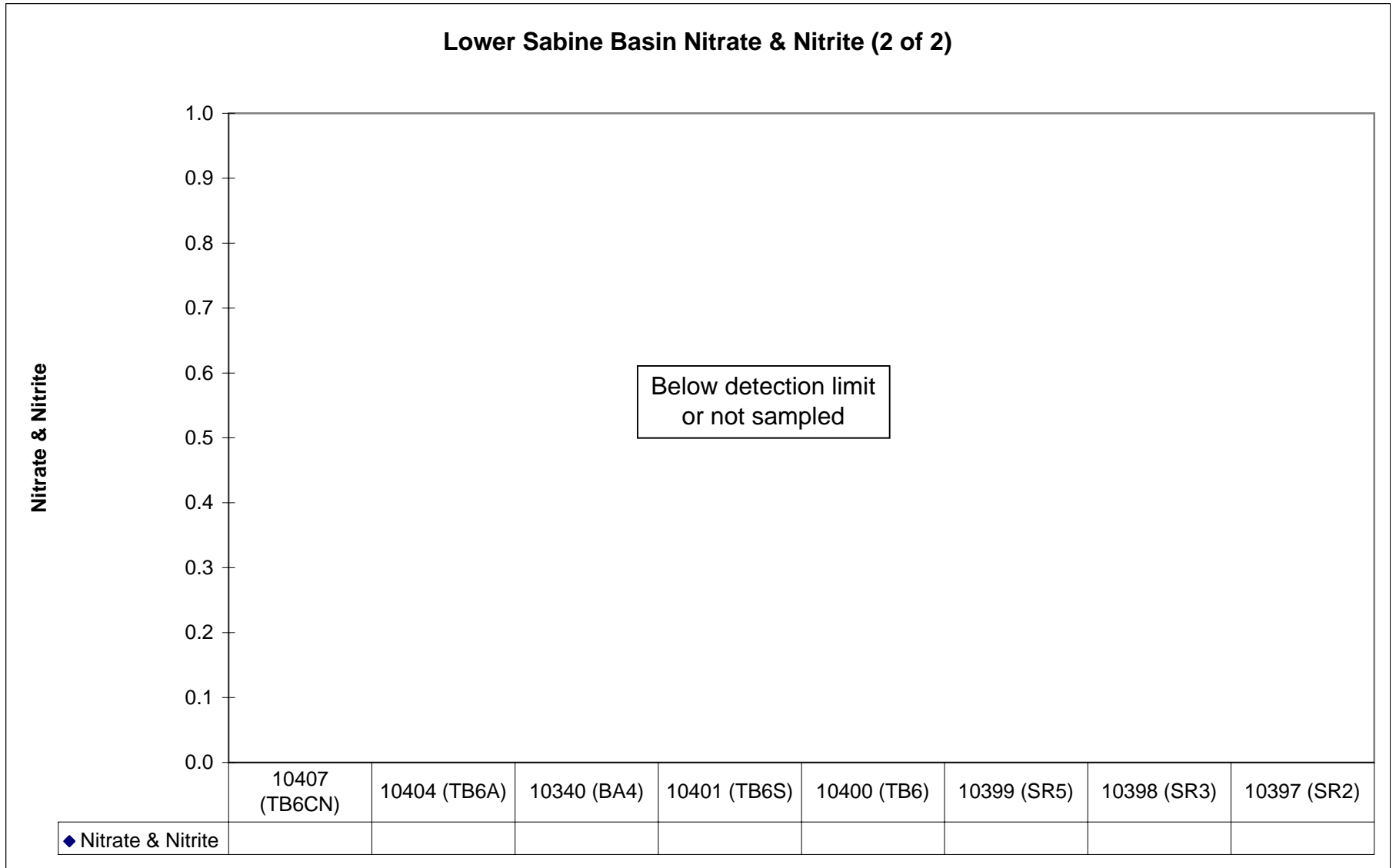
June 2002



Stations without values were below detection limit on this run (see page 18).

SABINE RIVER AUTHORITY OF TEXAS

June 2002



Stations without values were below detection limit or not sampled on this run (see page 18)

SABINE RIVER AUTHORITY OF TEXAS

Lower Basin Profiles

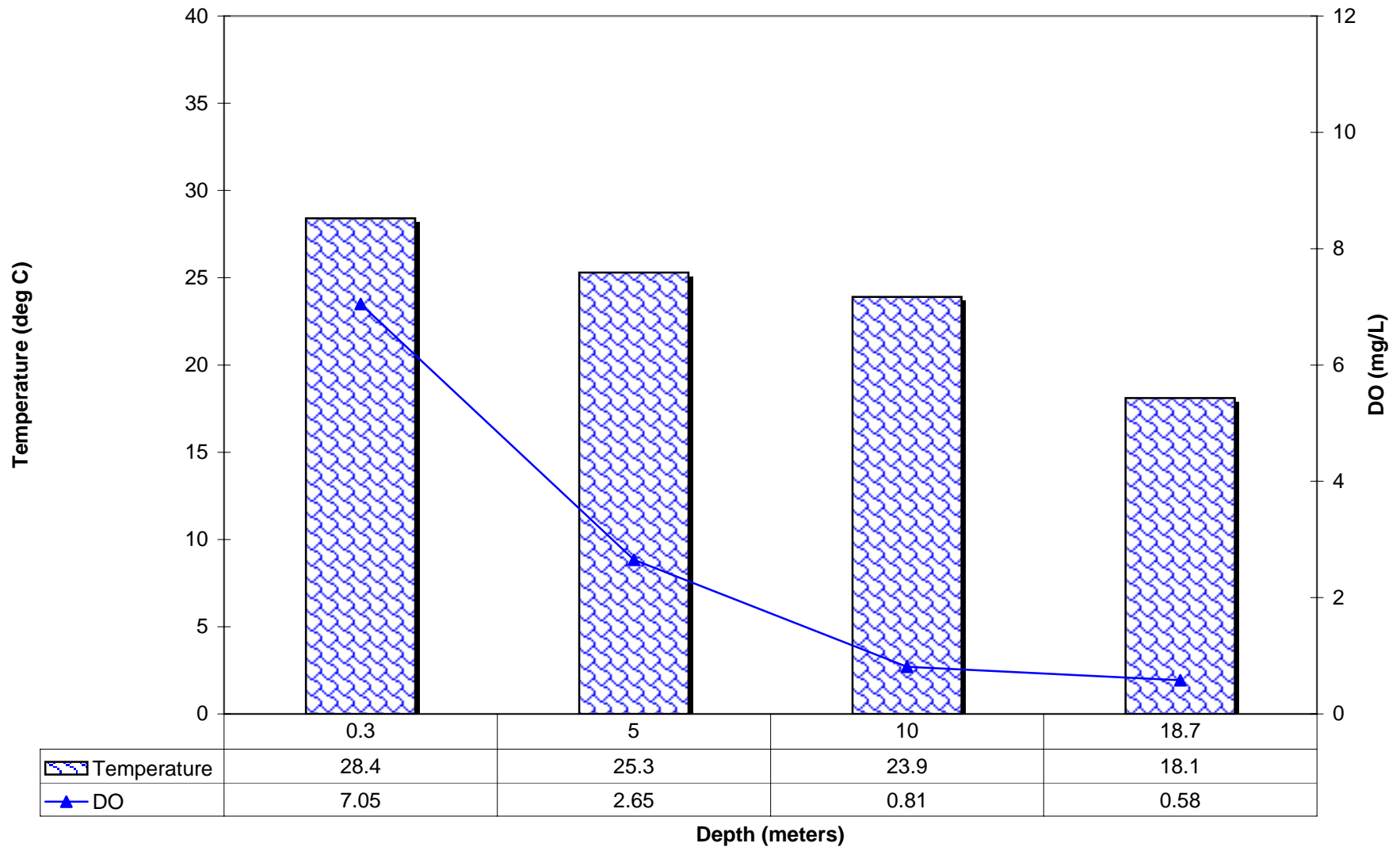
June 2002

Date	SW ID	Station	Depth Meters	Temperature	pH	DO	%	Conductivity
				°C 00010	Units 00400	mg/L 00300	Saturation 00301	µS/cm 00094
6/12/02 10:07 AM	4.00	10403 (TB8)	0.3	28.4	7.25	7.47	96	272
			5.45	27.9	7.12	5.59	71	275
			8.87	27.9	7.12	5.16	66	274
			11.8	27.9	7.1	5.31	68	275
6/11/02 12:45 PM	4.00	15657 (TB6M)	0.3	28.3	6.37	3.46	45	131
			4.7	25.5	6.35	1.01	12	143
6/11/02 12:30 PM	4.00	15656 (TB6L)	0.3	29.1	6.65	6.42	84	141
			2.5	28.1	6.43	3.02	38	142
6/11/02 10:20 AM	4.00	15655 (TB6J)	0.3	29	7.21	6.64	86	156
			2	28.9	7.17	6.6	86	155
			4.8	28.7	6.98	5.72	75	155
6/11/02 12:05 PM	4.00	15659 (TB6K)	0.3	29.1	7.79	7.81	101	150
			3.5	26.7	6.7	3.64	56	149
			9.4	23.9	6.68	0.41	5	167
6/11/02 11:00 AM	4.00	10402 (TB6H)	0.3	28.4	7.39	7.05	91	146
			5	25.3	6.58	2.65	32	142
			10	23.9	6.48	0.81	10	152
			18.7	18.1	6.74	0.58	6	178
6/11/02 10:45 AM	4.00	10411 (TB6F)	0.3	29.5	7.95	7.87	103	136
			2.5	29.1	7.08	7.54	98	136
			5.5	24.8	6.63	1.04	60	141
6/11/02 9:40 AM	4.00	10407 (TB6CN)	0.3	29.6	7.08	7.42	98	128
			4	28.4	6.36	4.22	54	124
			7.1	26.8	6.11	0.67	8	134
6/12/02 10:20 AM	4.00	10404 (TB6A)	0.3	27	7.05	7.5	95	132
			5	22.9	6.63	5.02	59	135
			12	17.7	6.49	1.81	19	132
			15	15.5	6.42	0.78	8	140
			26	13.6	6.57	0.5	5	140

SABINE RIVER AUTHORITY OF TEXAS

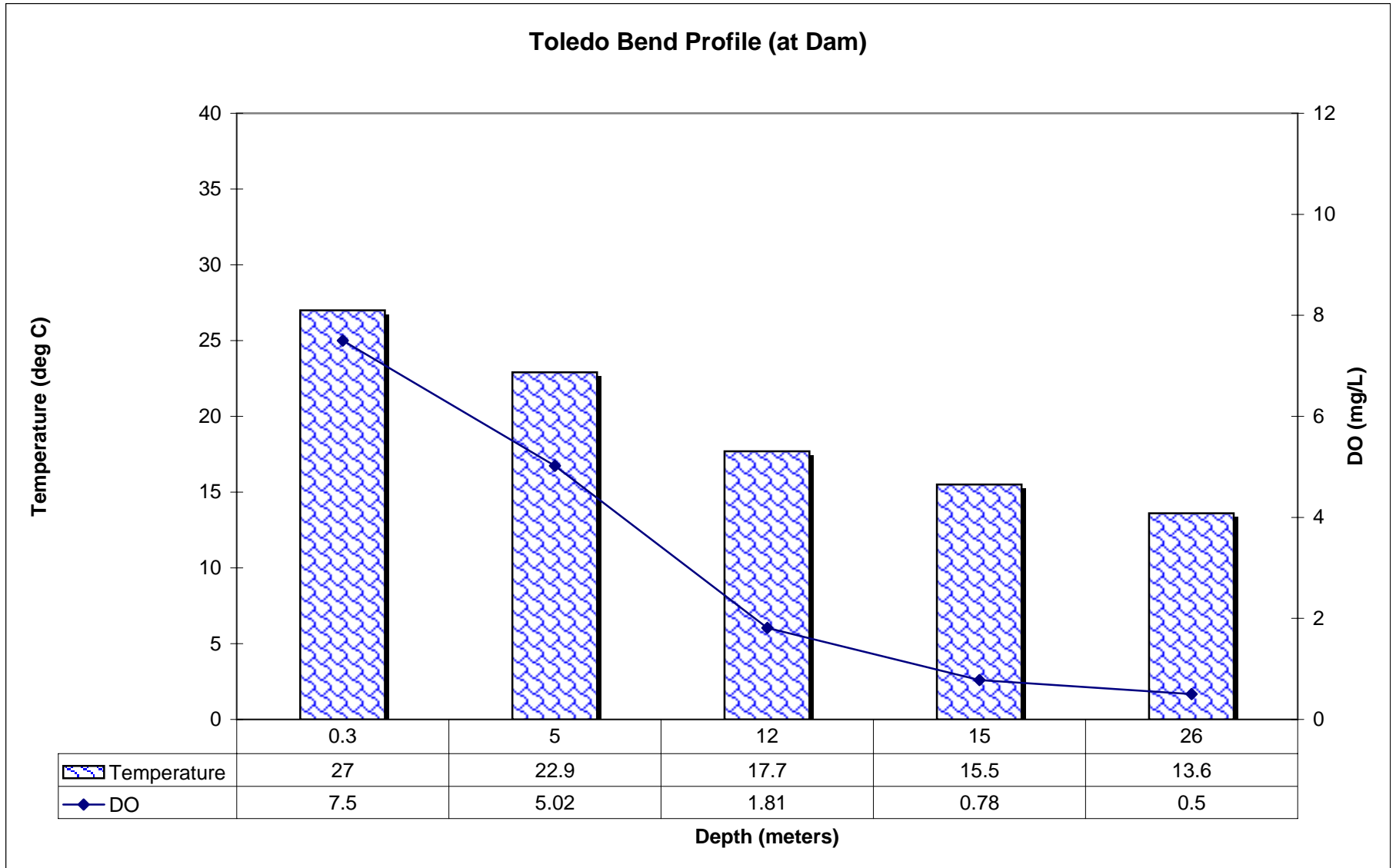
June 2002

Toledo Bend Profile (at Pendleton Bridge)



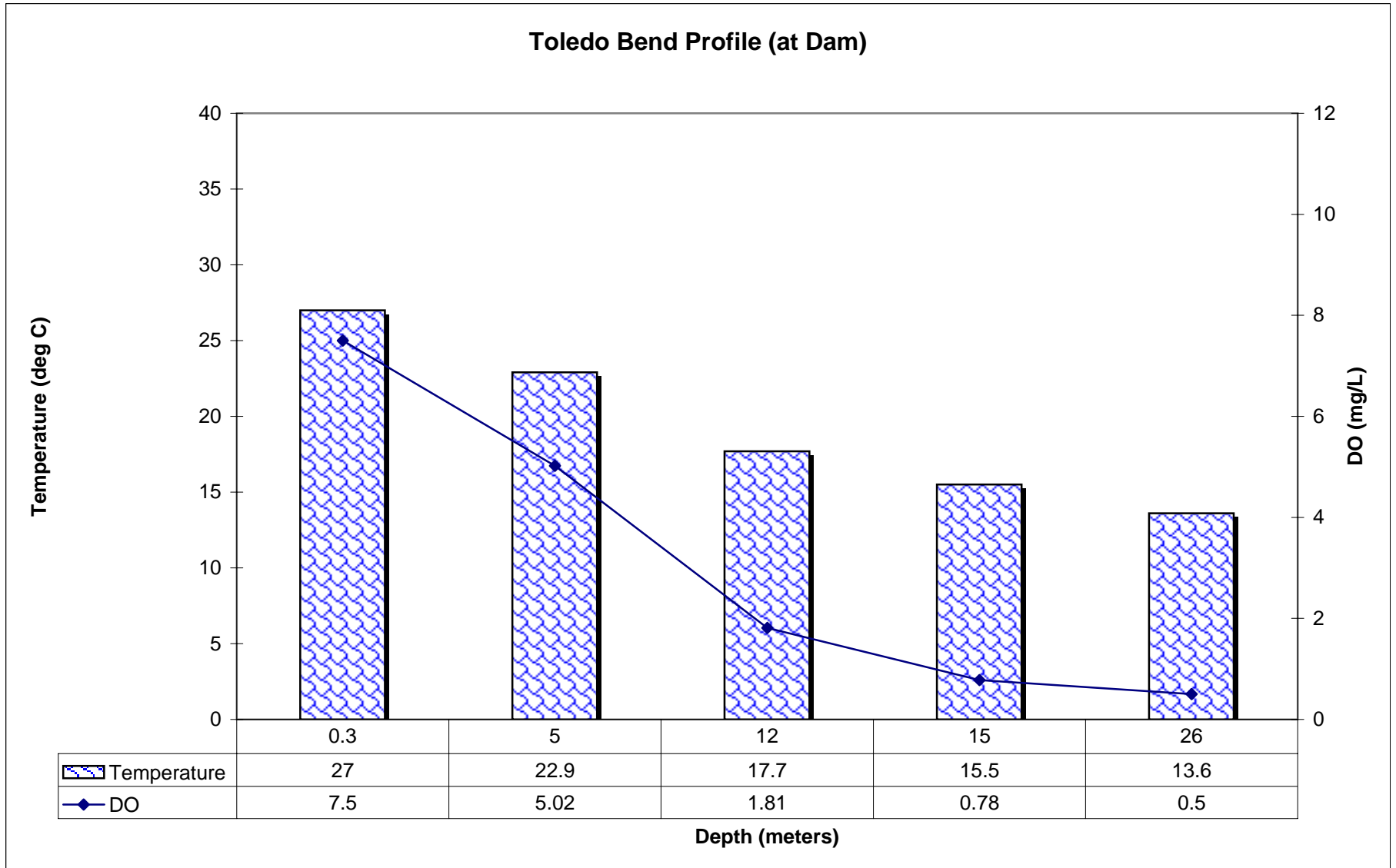
SABINE RIVER AUTHORITY OF TEXAS

June 2002



SABINE RIVER AUTHORITY OF TEXAS

June 2002



SABINE RIVER AUTHORITY OF TEXAS

Toledo Bend Weather and Reservoir Data

June 2002

Date	Lake Elev	LE - TOP	Max Temp	Min Temp	Rainfall	Evaporation	Daily Releases cfs	Daily Releases ac ft	Current Release
6/1/2002	172.03	0.03	85	63	0.00	0.24	1,648	3,269	174
6/2/2002	172.04	0.04	91	64	0.00	0.31	174	345	174
6/3/2002	172.00	0.00	93	64	0.00	0.36	2,533	5,024	174
6/4/2002	171.94	(0.06)	92	66	0.00	0.31	2,481	4,921	174
6/5/2002	171.97	(0.03)	93	69	0.00	0.31	2,700	5,355	174
6/6/2002	171.98	(0.02)	92	69	0.00	0.32	2,551	5,060	174
6/7/2002	171.93	(0.07)	91	70	0.00	0.23	2,553	5,064	174
6/8/2002	171.90	(0.10)	92	71	0.00	0.39	2,377	4,715	174
6/9/2002	171.82	(0.18)	92	71	0.00	0.14	174	345	174
6/10/2002	171.80	(0.20)	90	73	0.00	0.12	2,544	5,046	174
6/11/2002	171.80	(0.20)	91	73	0.01	0.25	2,663	5,282	174
6/12/2002	171.82	(0.18)	92	67	0.00	0.27	2,669	5,293	174
6/13/2002	171.81	(0.19)	94	67	0.00	0.35	2,610	5,177	144
6/14/2002	171.82	(0.18)	94	68	0.00	0.33	2,544	5,046	174
6/15/2002	171.78	(0.22)	88	64	0.00	NR	2,534	5,026	174
6/16/2002	171.73	(0.27)	88	65	0.07	NR	174	345	174
6/17/2002	171.73	(0.27)	85	65	0.13	0.25	2,583	5,123	174
6/18/2002	171.62	(0.38)	87	68	0.00	0.29	2,548	5,054	174
6/19/2002	171.58	(0.42)	91	70	0.00	0.25	2,277	4,516	144
6/20/2002	171.53	(0.47)	91	64	0.02	0.23	2,604	5,165	174
6/21/2002	171.55	(0.45)	92	67	1.75	NR	2,912	5,776	174
6/22/2002	171.51	(0.49)	94	63	0.00	0.34	2,394	4,748	174
6/23/2002	171.46	(0.54)	92	64	0.00	0.35	174	345	174
6/24/2002	171.41	(0.59)	85	67	0.00	0.22	2,546	5,050	174
6/25/2002	171.40	(0.60)	86	65	0.05	0.20	2,433	4,826	174
6/26/2002	171.38	(0.62)	87	66	0.00	0.23	2,473	4,905	174
6/27/2002	171.29	(0.71)	85	68	0.25	0.19	2,421	4,802	174
6/28/2002	171.32	(0.68)	85	70	0.02	0.27	2,431	4,822	174
6/29/2002	171.30	(0.70)	86	70	0.46	0.17	2,439	4,838	174
6/30/2002	171.28	(0.72)	88	72	0.00	0.18	174	345	174
Avg or Tot	171.68	(0.32)	90	67	2.76	7.10	2,111	125,628	

Units	Avg Feet M.S.L.	Avg Feet	Avg Deg. F	Avg Deg. F	Tot Inches	Tot Inches	Avg cfs	Tot Ac. Ft.	cfs
									approx. 8:00 a.m.

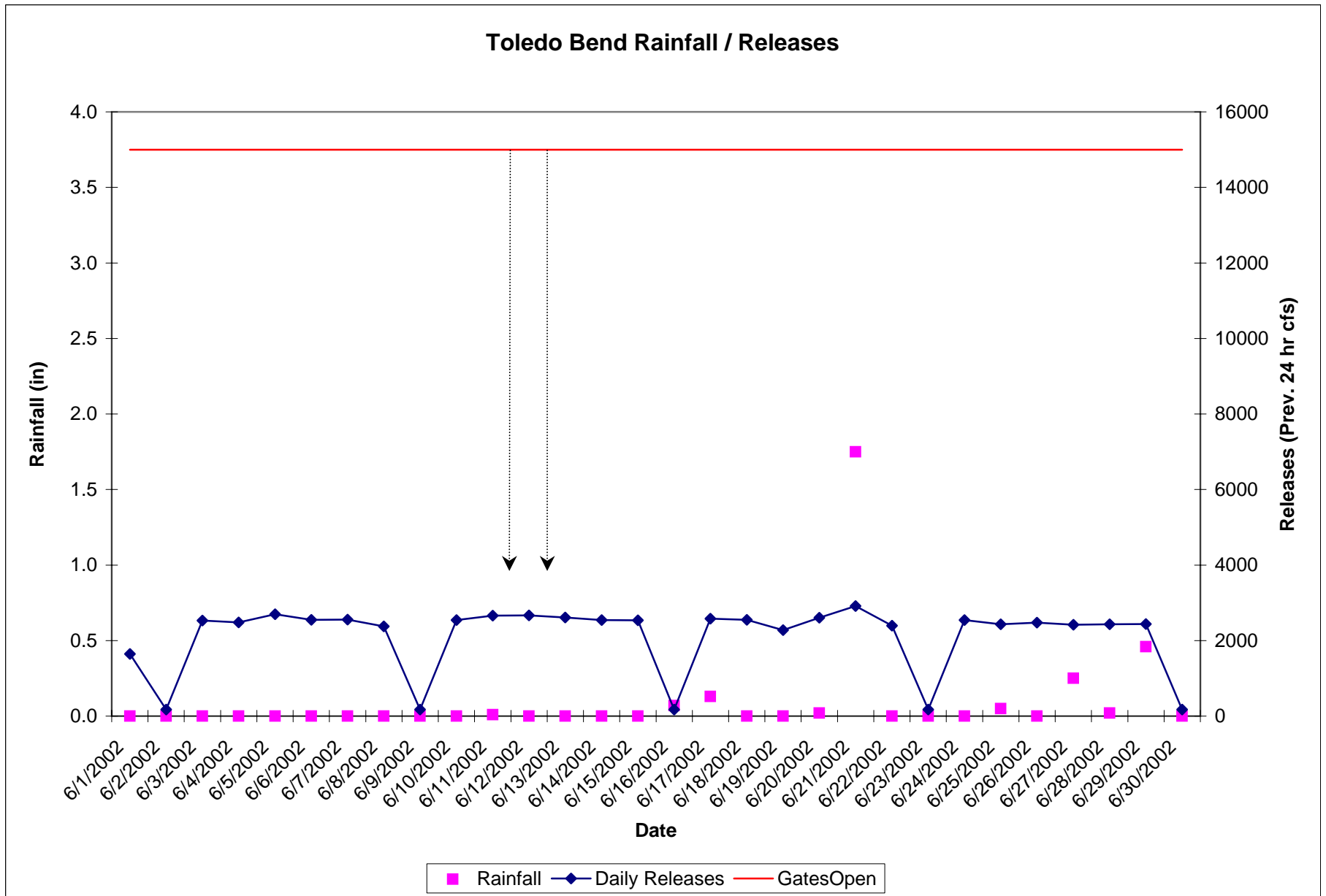
TOP: Top of Pool = 172 Feet M.S.L.

NR: Not Recorded

Toledo Bend Sampled on 6/11/2002 and 6/12/2002

SABINE RIVER AUTHORITY OF TEXAS

June 2002



Toledo Bend sampled on 6/11/2002 and 6/12/2002

Flood gates open when flow greater than approximately 15,000 cfs

SABINE RIVER AUTHORITY OF TEXAS

Burkeville Weather and River Data

June 2002

Date	<i>Rainfall</i>	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow</i>
6/1/2002	0.05	15.28	(22.72)	1,339
6/2/2002	0.00	15.08	(22.92)	1,222
6/3/2002	0.00	12.39	(25.61)	156
6/4/2002	0.00	15.51	(22.49)	1,479
6/5/2002	0.00	15.26	(22.74)	1,327
6/6/2002	0.00	15.53	(22.47)	1,492
6/7/2002	0.00	15.60	(22.40)	1,536
6/8/2002	0.00	15.37	(22.63)	1,393
6/9/2002	0.62	15.50	(22.50)	1,473
6/10/2002	0.24	12.43	(25.57)	165
6/11/2002	0.25	15.75	(22.25)	1,633
6/12/2002	0.01	15.81	(22.19)	1,672
6/13/2002	0.00	15.79	(22.21)	1,659
6/14/2002	0.00	15.04	(22.96)	1,200
6/15/2002	0.00	15.46	(22.54)	1,448
6/16/2002	0.00	15.52	(22.48)	1,485
6/17/2002	0.00	12.28	(25.72)	133
6/18/2002	0.00	15.50	(22.50)	1,473
6/19/2002	0.00	15.48	(22.52)	1,461
6/20/2002	0.00	15.48	(22.52)	1,461
6/21/2002	0.99	15.69	(22.31)	1,594
6/22/2002	0.05	15.88	(22.12)	1,719
6/23/2002	0.00	15.06	(22.94)	1,211
6/24/2002	0.00	12.31	(25.69)	139
6/25/2002	0.06	15.66	(22.34)	1,575
6/26/2002	0.06	15.68	(22.32)	1,588
6/27/2002	2.23	15.65	(22.35)	1,568
6/28/2002	0.01	15.50	(22.50)	1,473
6/29/2002	0.52	15.53	(22.47)	1,492
6/30/2002	0.00	15.47	(22.53)	1,454
Avg or Tot	5.09	15.08	(22.92)	1,301

	Tot	Avg	Avg	Avg
Units	Inches	Feet	Feet	cfs

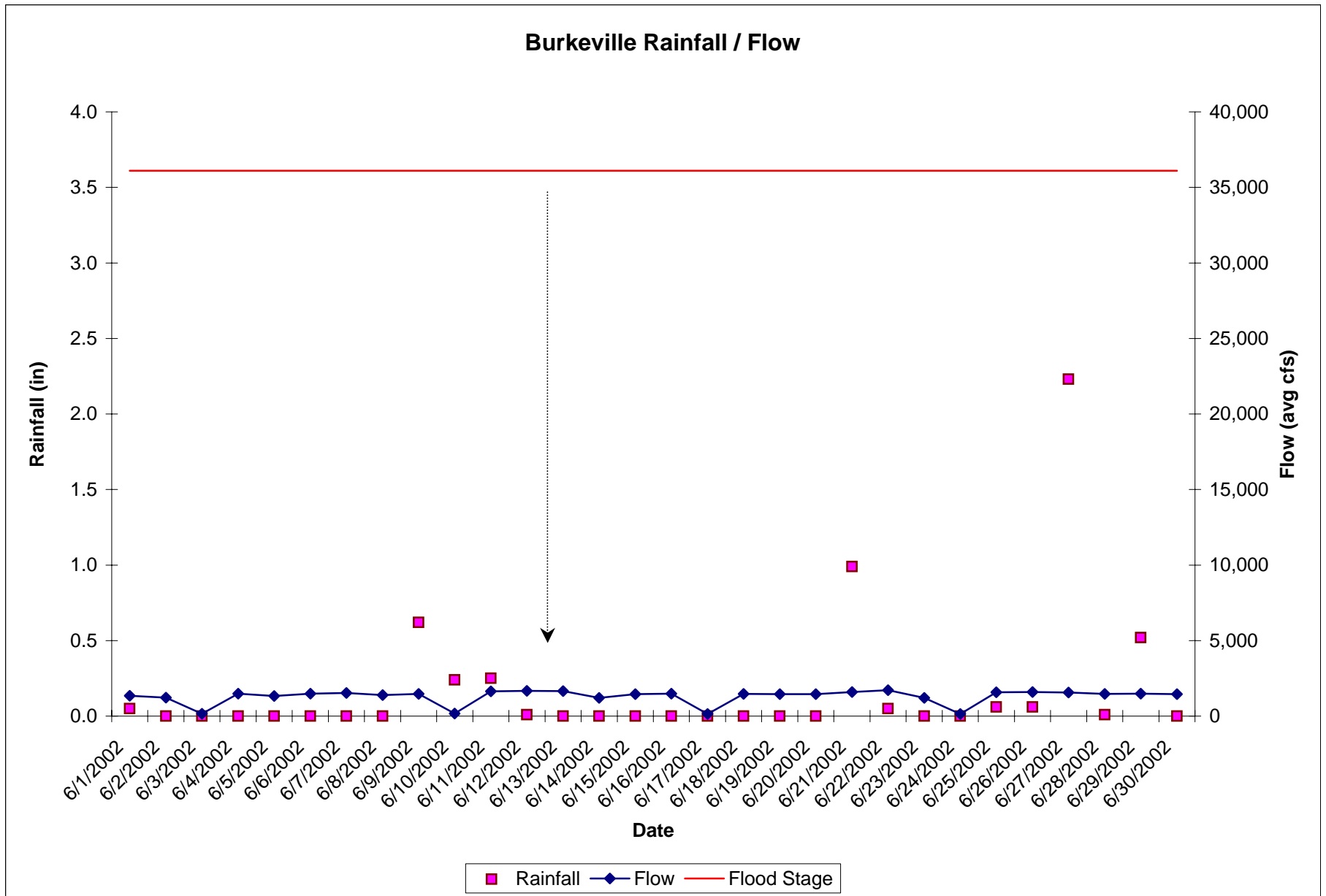
FS: Flood Stage = 41 feet

OUT: Gage Out

Lower Sabine Basin Sampled on 6/12/2002

SABINE RIVER AUTHORITY OF TEXAS

June 2002



Flood stage flow of 36,100 cfs calculated from flood stage gage height, 38 ft msl.

SABINE RIVER AUTHORITY OF TEXAS

Bon Wier Weather and River Data

June 2002

Date	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow Avg</i>	<i>308 Rainfall</i>
6/1/2002	15.22	(14.78)	2,032	0.00
6/2/2002	15.19	(14.81)	2,011	0.00
6/3/2002	15.01	(14.99)	1,886	0.00
6/4/2002	13.33	(16.67)	895	0.00
6/5/2002	15.47	(14.53)	2,213	0.00
6/6/2002	15.55	(14.45)	2,272	0.00
6/7/2002	OUT	OUT	OUT	OUT
6/8/2002	15.63	(14.37)	2,332	0.00
6/9/2002	15.59	(14.41)	2,302	0.02
6/10/2002	15.65	(14.35)	2,347	0.13
6/11/2002	13.59	(16.41)	1,027	0.41
6/12/2002	15.74	(14.26)	2,416	0.11
6/13/2002	OUT	OUT	OUT	OUT
6/14/2002	15.72	(14.28)	2,400	0.00
6/15/2002	15.58	(14.42)	2,295	0.00
6/16/2002	15.49	(14.51)	2,227	0.00
6/17/2002	15.40	(14.60)	2,161	0.20
6/18/2002	13.28	(16.72)	871	0.00
6/19/2002	15.42	(14.58)	2,176	0.00
6/20/2002	OUT	OUT	OUT	OUT
6/21/2002	OUT	OUT	OUT	OUT
6/22/2002	OUT	OUT	OUT	OUT
6/23/2002	OUT	OUT	OUT	OUT
6/24/2002	OUT	OUT	OUT	OUT
6/25/2002	OUT	OUT	OUT	OUT
6/26/2002	OUT	OUT	OUT	OUT
6/27/2002	OUT	OUT	OUT	OUT
6/28/2002	15.65	(14.35)	2,347	0.12
6/29/2002	15.65	(14.35)	2,347	0.47
6/30/2002	15.55	(14.45)	2,272	0.00
Avg or Tot	15.19	(14.81)	2,041	1.46

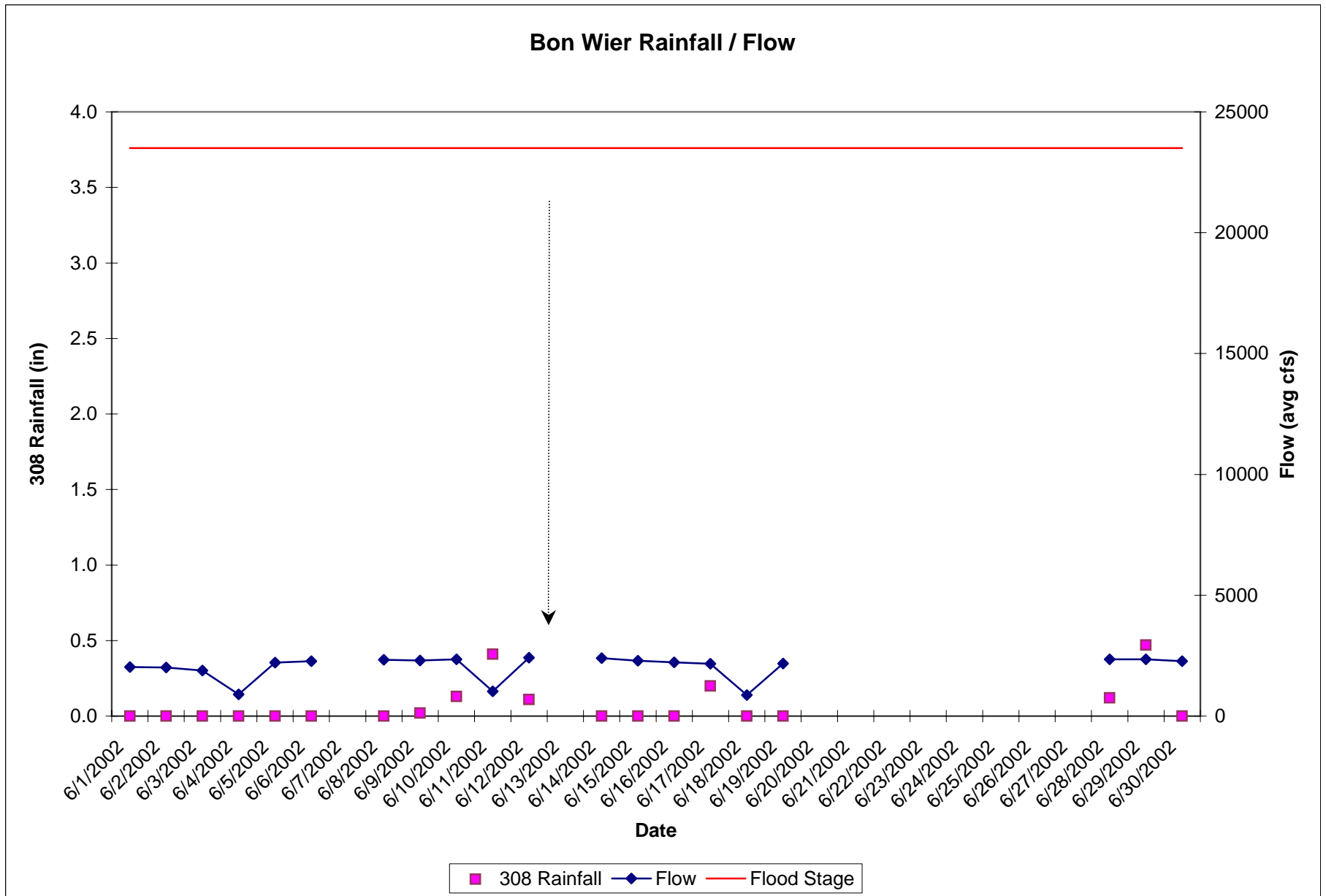
Units	Avg Feet	Avg Feet	Avg	Tot Inches
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FS: Flood Stage = 30 feet

Lower Sabine Basin Sampled on 6/12/2002

SABINE RIVER AUTHORITY OF TEXAS

June 2002



Lower Sabine Basin sampled on 6/12/2002

Flood stage flow of 23,500 cfs calculated from flood stage gage height, 30 ft msl.

SABINE RIVER AUTHORITY OF TEXAS

Ruliff Weather and River Data

June 2002

Date	<i>Gauge Height</i>	<i>GH - FS</i>	<i>Flow cfs</i>	<i>Flow acft</i>	<i>Flow avg</i>	<i>309 Rainfall</i>
6/1/2002	17.53	(6.47)	2,631	5,219	2,631	0.13
6/2/2002	17.70	(6.30)	2,734	5,423	2,683	0.00
6/3/2002	17.78	(6.22)	2,783	5,520	2,716	0.00
6/4/2002	17.57	(6.43)	2,655	5,266	2,701	0.00
6/5/2002	16.32	(7.68)	1,968	3,903	2,554	0.00
6/6/2002	17.27	(6.73)	2,476	4,911	2,541	0.03
6/7/2002	18.06	(5.94)	2,959	5,869	2,601	0.18
6/8/2002	18.35	(5.65)	3,151	6,250	2,670	0.22
6/9/2002	18.45	(5.55)	3,218	6,383	2,731	0.00
6/10/2002	18.55	(5.45)	3,286	6,518	2,786	0.00
6/11/2002	18.56	(5.44)	3,293	6,532	2,832	0.16
6/12/2002	17.19	(6.81)	2,429	4,818	2,799	0.00
6/13/2002	17.58	(6.42)	2,661	5,278	2,788	0.00
6/14/2002	18.43	(5.57)	3,205	6,357	2,818	0.00
6/15/2002	18.57	(5.43)	3,300	6,545	2,850	0.00
6/16/2002	18.55	(5.45)	3,286	6,518	2,877	0.00
6/17/2002	18.49	(5.51)	3,245	6,436	2,899	0.32
6/18/2002	18.38	(5.62)	3,171	6,290	2,914	0.00
6/19/2002	16.84	(7.16)	2,235	4,433	2,878	0.00
6/20/2002	17.34	(6.66)	2,517	4,992	2,860	0.00
6/21/2002	18.20	(5.80)	3,051	6,052	2,869	0.54
6/22/2002	18.22	(5.78)	3,064	6,077	2,878	0.03
6/23/2002	OUT	OUT	OUT	OUT	OUT	OUT
6/24/2002	18.62	(5.38)	3,334	6,613	2,898	OUT
6/25/2002	18.44	(5.56)	3,212	6,371	2,911	OUT
6/26/2002	16.65	(7.35)	2,136	4,237	2,880	OUT
6/27/2002	17.61	(6.39)	2,679	5,314	2,766	OUT
6/28/2002	18.38	(5.62)	3,171	6,290	2,780	2.24
6/29/2002	18.62	(5.38)	3,334	6,613	2,799	0.32
6/30/2002	18.72	(5.28)	3,403	6,750	2,820	0.00
Avg or Tot	17.96	(6.04)	2,917	167,778		4.17

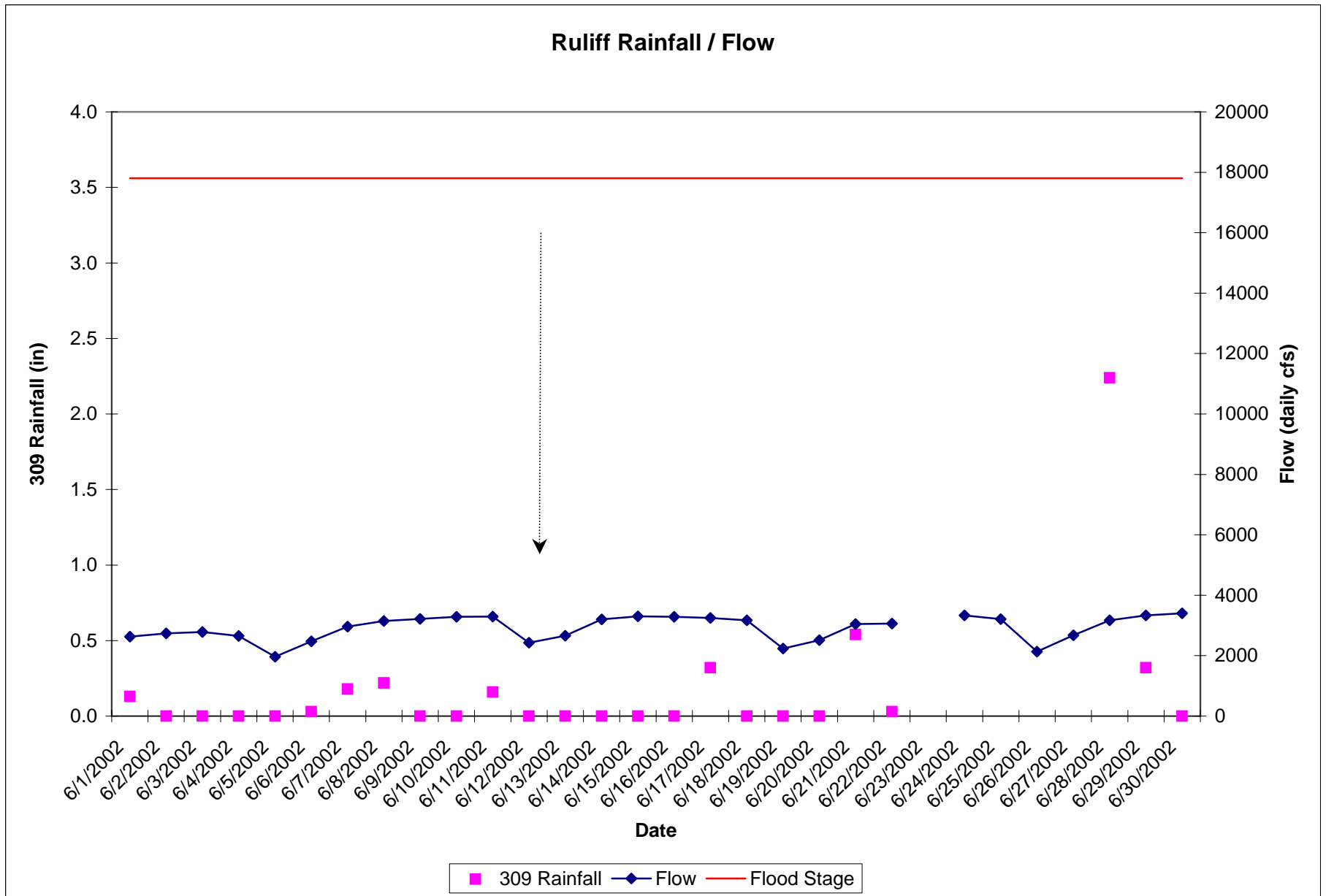
Units	Avg Feet	Avg Feet	Avg cfs	Tot ac ft	Tot Inches
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FS: Flood Stage 24 feet with 10 foot datum

Lower Sabine Basin Sampled on 6/12/2002

SABINE RIVER AUTHORITY OF TEXAS

June 2002



Lower Sabine Basin sampled on 6/12/2002

Flood stage flow of 17,800 cfs calculated from flood stage gage height, 24 ft msl.

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FY2002 Fixed Monitoring Stations

Tidal Sabine Basin

<i>SW</i>	<i>Segment</i>	<i>Station</i>	<i>Location</i>
1.05	0501	15653 (ICW1)	INTERCOASTAL WATERWAY AT PERRY RIDGE
1.01	0501	15654 (BB1)	BLACK BAYOU IN CAMERON PARISH
1.00	0501	10395 (SR1)	SABINE RIVER 12.00 KM UPSTREAM OF IH 10
1.00	0501	10394 (SRT2)	SABINE RIVER AT IH 10
1.00	0501	10391 (SRT1)	SABINE RIVER AT CHANNEL CAN 3

SABINE RIVER AUTHORITY OF TEXAS

Tidal Report

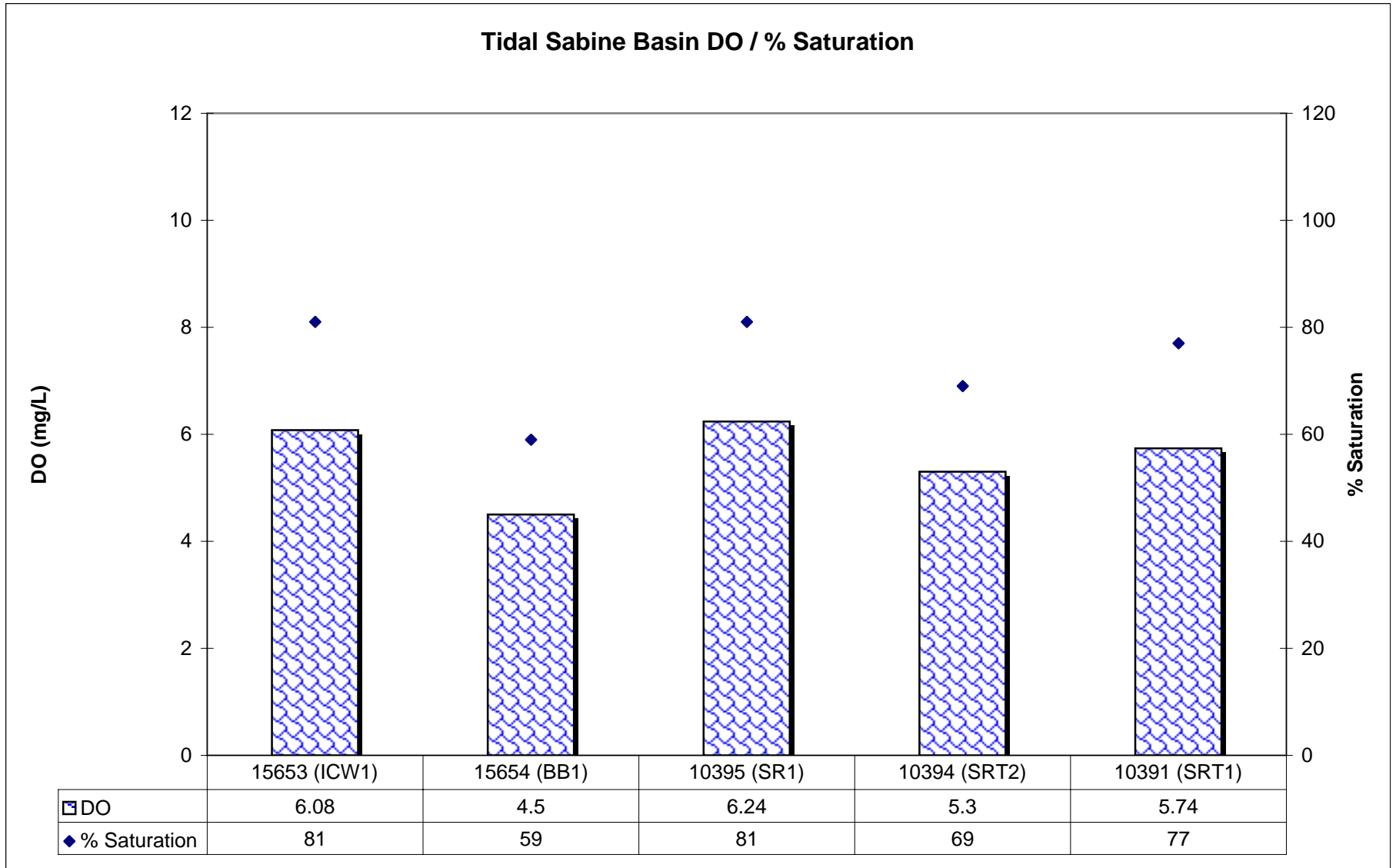
June 2002

Date	SW ID	Station	Temperature °C 00010	pH Units 00400	DO mg/L 00300	% Saturation 00301	Conductivity µS/cm 00094	Salinity ppt 00480	Secchi Meters 00078	Turbidity NTU 82079	<i>E. coli</i> mpn/100ml 31699	<i>Enterococcus</i> mpn/100ml 31701	Chlorophyll a µg/L 32211	Nitrate & Nitrite 00630	Ortho- Phosphate 00671	TOC mg/L 00680	Total Alkalinity 00410	Total Hardness 00900	Chloride mg/L 00940	Sulfate mg/L 00945
6/13/02 10:05 AM	1.05	15653 (ICW1)	29.9	7.03	6.08	81	4113	2.2	0.6	8.1	*	5	*	< 0.04	< 0.04	4	*	*	1240	160
6/13/02 10:30 AM	1.01	15654 (BB1)	28.8	6.8	4.5	59	8666	4.9	0.64	6.7	*	10	*	< 0.04	< 0.04	4	*	*	2750	380
6/13/02 9:25 AM	1.00	10395 (SR1)	29.4	6.96	6.24	81	166	*	0.45	15.5	10	*	*	< 0.04	< 0.04	5	*	*	12	26
6/13/02 9:45 AM	1.00	10394 (SRT2)	28.4	6.74	5.3	69	189	< 1	0.43	11.8	*	6	*	< 0.04	< 0.04	5	*	*	21	21
6/13/02 10:40 AM	1.00	10391 (SRT1)	29.2	7.04	5.74	77	6214	3.4	0.74	6.37	*	2	*	< 0.04	< 0.04	4	*	*	1850	270

*: Not sampled on this run

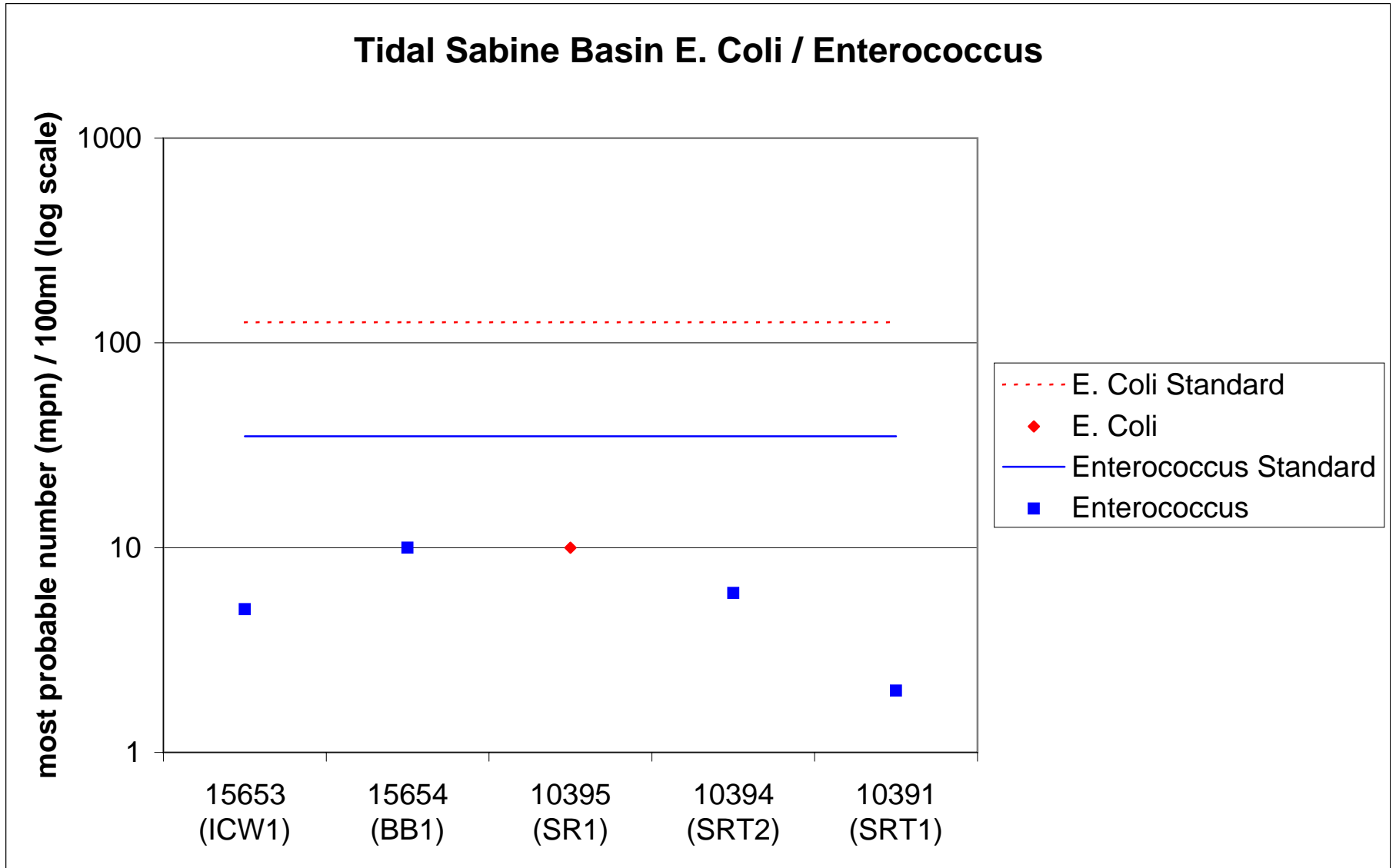
SABINE RIVER AUTHORITY OF TEXAS

June 2002



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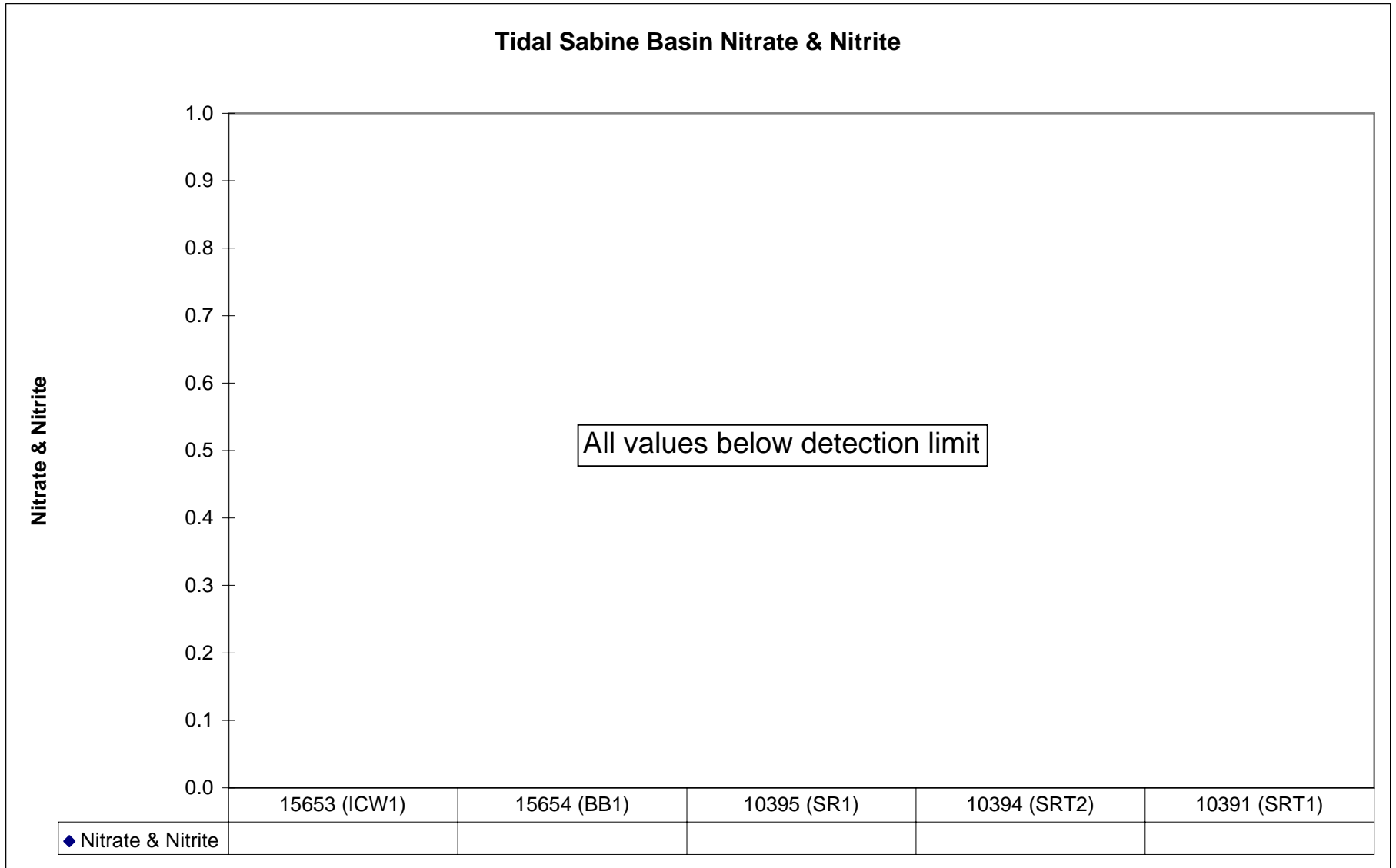
June 2002



Stations without values were not sampled on this run (see page 38).

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June 2002



Stations without values were below detection limit on this run (see page 38)

SABINE RIVER AUTHORITY OF TEXAS

Orange Weather and River Data

June 2002

Date	310 (Orange) Rainfall	Gauge Height	GH - FS	Max Temp	Min Temp	Cur Temp	293 (GCD) Rainfall
6/1/2002	0.10	1.65	(2.35)	84	65	65	0.23
6/2/2002	0.00	1.69	(2.31)	88	65	67	0.00
6/3/2002	0.00	2.01	(1.99)	89	67	70	0.00
6/4/2002	0.00	2.25	(1.75)	88	69	73	0.00
6/5/2002	0.00	2.29	(1.71)	89	70	71	0.00
6/6/2002	0.00	2.18	(1.82)	88	70	70	0.39
6/7/2002	0.02	2.05	(1.95)	92	70	75	0.00
6/8/2002	0.05	2.07	(1.93)	90	72	72	0.01
6/9/2002	0.00	2.21	(1.79)	91	72	75	0.00
6/10/2002	0.00	1.77	(2.23)	90	75	76	0.00
6/11/2002	0.00	2.00	(2.00)	89	74	75	0.22
6/12/2002	0.21	1.84	(2.16)	88	70	70	0.00
6/13/2002	0.00	1.49	(2.51)	90	69	70	0.00
6/14/2002	0.00	1.37	(2.63)	92	69	76	0.00
6/15/2002	0.00	0.67	(3.33)	94	64	64	0.00
6/16/2002	0.00	1.46	(2.54)	92	64	74	0.00
6/17/2002	0.44	1.10	(2.90)	89	69	70	0.49
6/18/2002	0.00	1.45	(2.55)	86	66	66	0.00
6/19/2002	0.00	2.12	(1.88)	89	66	70	0.00
6/20/2002	0.00	2.31	(1.69)	90	70	72	0.00
6/21/2002	0.13	1.96	(2.04)	88	70	70	0.12
6/22/2002	0.00	2.08	(1.92)	92	66	66	0.12
6/23/2002	OUT	OUT	OUT	90	66	67	0.00
6/24/2002	OUT	OUT	OUT	87	68	69	0.00
6/25/2002	0.26	1.44	(2.56)	82	69	69	0.30
6/26/2002	0.22	1.64	(2.36)	85	69	71	0.28
6/27/2002	0.62	1.57	(2.43)	85	71	73	0.90
6/28/2002	3.86	1.64	(2.36)	81	71	73	2.20
6/29/2002	0.06	1.53	(2.47)	85	73	75	0.65
6/30/2002	0.00	1.89	(2.11)	87	75	76	0.00
Avg or Tot	5.97	1.78	(2.22)	88	69	71	5.91

Units	Tot Inches	Avg Feet	Avg Feet	Avg Deg F	Avg Deg F	Avg Deg F	Tot Inches
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Appx. 8 am

310 Rainfall: Old Navy Base, City of Orange

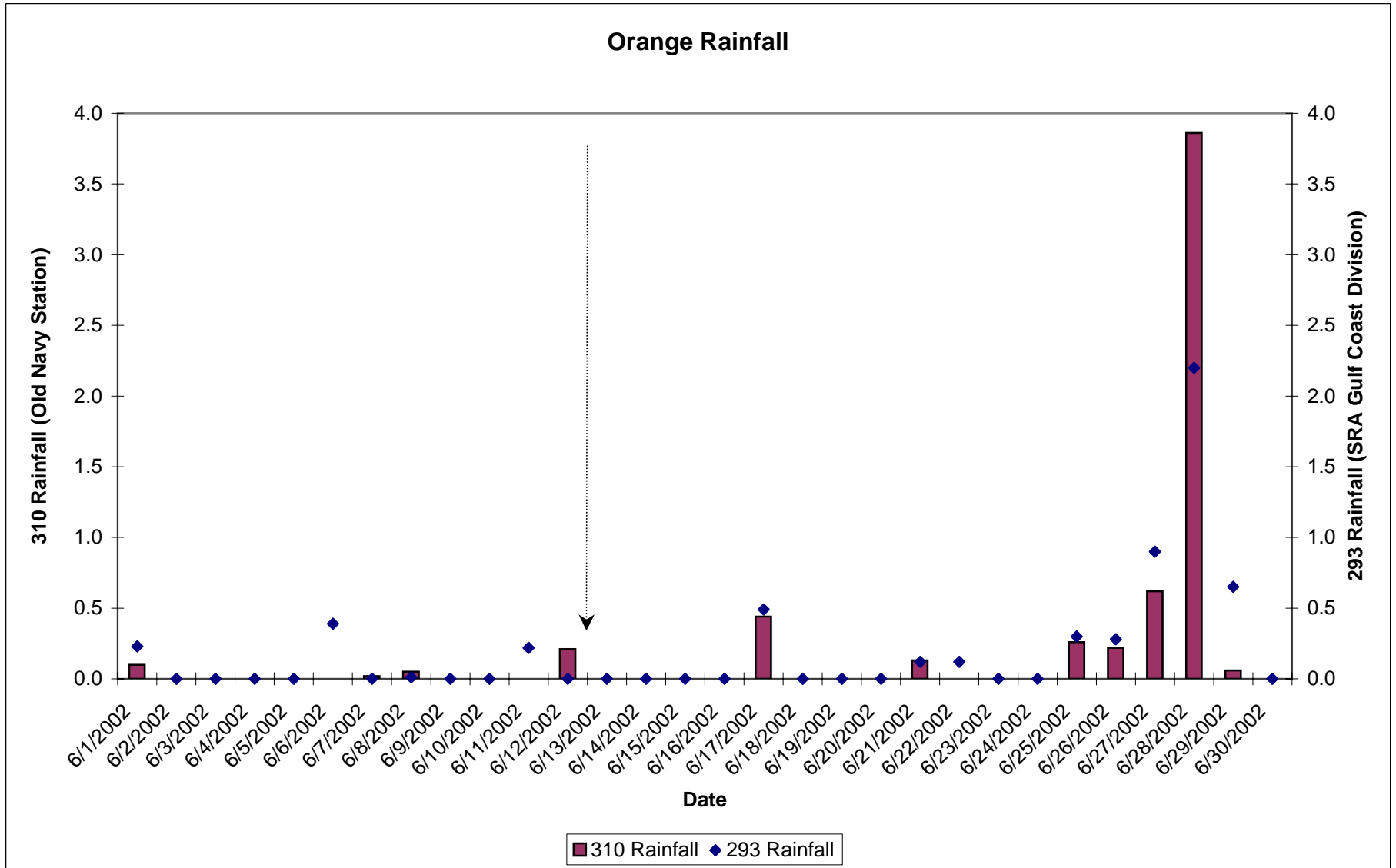
293: SRA Gulf Coast Division Office, Northern Orange County

FS: Flood Stage = 4 Feet

Tidal Sabine Basin Sampled on 6/13/2002

SABINE RIVER AUTHORITY OF TEXAS

June 2002



Tidal Sabine Basin Sampled on 6/13/2002